

Geographies of Sustainability Transitions
Embedding Sustainability into
Regional Economic Development Strategies:
Actors, Dynamics, and Pathways

Kumulative Dissertation
zur Erlangung des Doktorgrades der Naturwissenschaften (Dr. rer. nat.)

am Fachbereich Geographie der
Philipps-Universität Marburg
vorgelegt von:

Master of Arts

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Marburg, 2021

Vom Fachbereich Geographie (Fachbereich 19) der Philipps-Universität Marburg als
Dissertation am 19.05.2021 angenommen. Die Disputation erfolgte am 28.07.2021 am
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Für meine Familie

PREFACE

i. Thesis Details

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Ich versichere wahrheitsgemäß, dass ich die vorliegende Dissertation selbst und ohne fremde Hilfe verfasst, keine anderen als die in ihr angegebenen Quellen oder Hilfsmittel benutzt sowie vollständig oder sinngemäß übernommenen Zitate als solche gekennzeichnet habe. Die Dissertation wurde in der vorliegenden oder einer ähnlichen Form noch bei keiner anderen in- oder ausländischen Hochschule eingereicht und hat noch keinen sonstigen Prüfungszwecken gedient.

Dresden, den 28.04.2021



Paul Werner

iv. Papers and Contributions

The following papers are included in this thesis.

No.	Title	Journal	Status	Co-authors (with contribution)	Own Contribution
1	Policy mobilities, territorial knowledge dynamics and the role of KIBS: Exploring conceptual synergies of formerly discrete approaches	Geoforum	Published in 2018, volume 89, pages: 19-28	Simone Strambach (25%)	Main author (75%)
2	Micro-Level Knowledge Dynamics in Policy Mobilities: Inventing a Policy for Sustainable Economic Development in Hesse, Germany	Geografiska Annaler	Submitted on 06.04.2021, 1st revision	Simone Strambach (25%)	Main author (75%)
3	Regionale Transitionspfade zur Nachhaltigkeit: die Gemeinwohlökonomie als Impuls für institutionelle Veränderungen im deutschen Wirtschaftsförderungssystem	Zeitschrift für Wirtschafts-geographie	Submitted on 06.04.2021, 1st revision	Ulrich Dewald (25%)	Main author (75%)

v. Acknowledgements

An adventurous journey slowly comes to an end with the submission of this doctoral thesis. Twelve years have passed since I started studying in Marburg that have had a lasting impact on my store of knowledge and experience. Of course, this not only holds true from an academic point of view, but above all from a personal one. The people who accompanied me on this journey are most important, as they give me the support someone needs to master even major challenges like this doctoral thesis. It is high time to thank these people at this point.

First, I would like to thank Simone Strambach for giving me the opportunity to do my doctorate. I am incredibly happy that I not only got to know her as a competent professor, but that she was always approachable, interested, and open to me on a human level. Our discussions have always brought me a lot of knowledge and the necessary motivation to continue. And even though my mind was bursting with new ideas after every meeting, the discussions were always great fun.

For your support and the knowledge you have shared with me, I have nothing to say but thank you!

I would also like to thank my employer, GEFAK, for giving me the freedom to do my doctorate alongside my job. This not only includes the fact that working hours could be adjusted as I needed it to be. Rather, especially Josef Rother, Ulrich Dewald, Jürgen Bunde and Christoph Saffrich always stood by my side with their unbelievably large amount of experience and valuable expert knowledge. I am overjoyed to be able to call you my colleagues and friends. In addition, the GEFAK network and the future-oriented projects made it possible to gain academic insights into the topic of sustainable economy that would otherwise be difficult to access. That made my work a lot easier.

For your openness and the opportunities you have offered me, I have nothing to say but thank you!

But above all, I would like to thank my family, without whom this doctoral thesis would never have been possible. I thank them for their love, inspiration, and security, but also for their constructive criticism and for regular inquiries how things are going with the doctoral thesis. I consider myself incredibly lucky that in all the years we have spent together they have given me the necessary skills and values to complete this challenge successfully.

For your love and inspiration, I have nothing to say but thank you!

vi. Abstract

English: This dissertation examines the role of institutional and social dynamics for the development of regions towards sustainability. Against the background of economic, ecological, and social crises, the integration, development, and dissemination of sustainable economic development strategies are becoming more and more relevant. While the line of transition research focuses on socio-technical regimes and their development towards sustainability, spatialities of these dynamics has been integrated into scientific research in recent years by the Geographies of Sustainability Transitions. The interdependencies between regional institutional systems and the practices of the actors involved can lead to gradual short-term changes and to larger institutional changes in the long term. However, the interplay and mechanisms of gradual changes and long-term transitions are largely unexplored.

To seize the socio-spatial dynamics of sustainable strategies (policies), this thesis uses the concept of Policy Mobilities. The processes analyzed in this line of research comprise dynamics determining the invention, mobilization, transfer, and localization of policies. Policies are important components for the institutional and practical development of an organization or region, as they provide guidelines for dealing with specific problems. In the theoretical framework of this thesis, the concept of Policy Mobilities is brought together with the evolutionary approach of Knowledge Dynamics to explain the constructive interdependencies between global knowledge flows and regional policy innovation processes.

The dissertation focuses the question of how the interdependencies of (policy) knowledge, regional institutions, and practices influence Regional Transition Paths to Sustainability. Hence, three scientific articles examine these dynamics with an emphasis on the role of consultants as mediators and initiators for sustainable action and thinking. This actor-centered approach necessitated ethnographic and practice-based methods (Action Research) and draws on individual cases in the empirical examples presented.

The results show that all three theoretical approaches used in this thesis, individually and in combination, can make useful contributions to research the Geographies of Sustainability Transitions.

Deutsch: Diese Dissertation untersucht die Rolle von institutionellen und sozialen Dynamiken für die Entwicklung von Regionen zu mehr Nachhaltigkeit. Vor dem Hintergrund ökonomischer, ökologischer und sozialer Krisen werden die Integration, Entwicklung und Verbreitung nachhaltiger Wirtschaftsförderungsstrategien immer relevanter. Während der Zweig der Transitionsforschung sich hauptsächlich mit den sozio-technischen Regimen und deren Entwicklung zu mehr Nachhaltigkeit branchenspezifisch beschäftigt, wurde seit einigen Jahren mit den Geographies of Sustainability Transitions der räumliche Aspekt dieser Dynamiken in den wissenschaftlichen Diskurs integriert. Insbesondere Interdependenzen zwischen regionalen institutionellen Systemen und den Praktiken der involvierten Akteure können kurzfristig zu graduellen, und langfristig zu größeren, institutionellen Veränderungen zu mehr Nachhaltigkeit führen. Das Zusammenspiel und die Mechanismen gradueller Veränderungen und langfristiger Transitionen sind jedoch weitgehend unerforscht.

Um die Verbreitung nachhaltiger Strategien (Policies) zu erfassen, nutzt diese Thesis das Konzept der Policy Mobilities. Die in diesem Forschungszweig analysierten Prozesse umfassen Dynamiken, die ursächlich für die Erfindung, Mobilisierung, Transfer und die lokale Kontextualisierung von Policies sind. Dabei werden Policies als wichtige Komponente für die institutionelle und praktische Entwicklung einer Organisation oder Region angesehen, da sie Leitlinien für den Umgang mit spezifischen Problemen vorgeben. Im theoretischen Rahmen dieser Thesis wird das Konzept der Policy Mobilities zusammengebracht mit dem evolutorischen Ansatz der Knowledge Dynamics zur Erklärung der konstruktiven Interdependenz globaler Wissensströme und regionaler Policy-Innovationsprozesse.

Im Zentrum der Dissertation steht die Frage der Interdependenzen von (Policy-) Wissen, regionalen Institutionen und Praktiken, die regionale Pfade zur Nachhaltigkeit beeinflussen. Entsprechend untersuchen drei wissenschaftlichen Artikel diese Dynamiken mit einem Schwerpunkt auf die Rolle von Consultants als Mediatoren und Impulsgeber für nachhaltiges Handeln und Denken. Dieser akteurszentrierte Ansatz erfordert ethnographische und praxisbasierte Erhebungsmethoden (Action Research) und konzentriert sich in den dargelegten empirischen Beispielen auf unterschiedliche Fallanalysen.

Die Ergebnisse zeigen, dass alle drei theoretischen Ansätze, die in dieser Thesis genutzt werden, allein und in kombinierter Anwendung, einen nützlichen Beitrag zur Forschung im Bereich der Geographies of Sustainability Transitions leisten können.

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x. List of Abbreviations

CoP	Communities of Practice
DKB	Differentiated Knowledge Bases
ECG	Economy of the Common Good
EU	European Union
EURODITE	Research project named “Regional Trajectories to the Knowledge Economy: A Dynamic Model” and funded by the European Union
GDR	German Democratic Republic
GEFAK	Gesellschaft für angewandte Kommunalforschung mbH
GeoST	Geography of Sustainability Transition
GWÖ	Gemeinwohlökonomie
KD	Knowledge Dynamics
KIBS	Knowledge Intensive Business Services
MLP	Multi-Level Perspective
OECD	Organisation for Economic Co-operation and Development
ÖPNV	Öffentlicher Personennahverkehr
PCK	PCK Raffinerie GmbH (chemals: Petrolchemisches Kombinat)
PM	Policy Mobilities
R&D	Research and Development
RIS	Regional innovation System
RTPS	Regional Transition Paths to Sustainability
SAS	Synthetic, Analytic, Symbolic Knowledge (related to DKB)
SNM	Strategic Niche Management
ST	Sustainability Transitions
TIM	Territorial Innovation Model
TKD	Territorial Knowledge Dynamics
UN	United Nations
WFG	Wirtschaftsförderungsgesellschaft

I INTRODUCTION

1 Introduction

In 1958 the GDR leadership decided to build an oil refinery in my hometown Schwedt/Oder, which would be responsible for treating and forwarding oil from the Soviet Union. Six years later, several chimneys of the Petrolchemisches Kombinat (PCK) smoked right on the city limits of Schwedt and ensured that due to the enormous air and environmental pollution people still know the nickname "Stinke-Schwedt" ("stinking Schwedt"). Although the PCK still exists today, changed legal frameworks and new technologies have made the refinery's processes significantly "cleaner" in the past few decades. Schwedt is now a city in a nature reserve, which has been used as a model for other cities due to the high proportion of green spaces, strategies of creative demolition during rapid population loss after the fall of the Berlin Wall as well as the development of environmentally sound industry.

However, the question arises to what extent the city and the region can really be considered sustainable. It is a question that only tentatively arose after the first future scenarios on climate change but gained importance in many regions especially after the financial crisis 2008 and even more in the light of the current corona pandemic. How sustainable are we as a region? The example of the PCK in Schwedt shows how difficult it is to answer this question. Much has improved in terms of the ecological impact of the refinery. Nevertheless, oil is still processed there, which contributes to a considerable part of man-made climate change and environmental problems. In addition, PCK is only one of many players in the region. How sustainable are other companies? How sustainably do people live? How sustainable is regional politics? Despite the increasing certainty about the drastic consequences of the contemporary economic and lifestyle, these questions still cannot be answered unambiguously.

It is all the more important to deal with the topic of sustainability. Because it needs changes at both the institutional and the operational level to act in a more ecologically, socially, and even economically sustainable manner. Understanding the complexity and contributing to a more sustainable future motivated me to focus this thesis on the topic of sustainable economic development strategies. In this subject three domains conjoin important elements for the development of regions and the change of institutional systems.

First, politics sets the framework for sustainable action (and business). Specific problems are dealt with not only through laws, but especially through the implementation and execution of political strategies. Political geography recognizes that these strategies – also known as policies – are not value-neutral, but that there is competition over how certain problems should be approached (Peck and Theodore 2010b). Especially the diffusion of neoliberal strategies has already been the subject to numerous studies (Fry et al. 2015; Pow 2018; Thompson 2020). Correspondingly, the argument that neoliberal practices also determine the way politics and administration work has been well researched (Peet 2007). It is important, however, that mobilities of these strategies and practices do not happen spontaneously but are driven by certain actors (McCann 2013). Accordingly, understanding the mechanisms for mobilizing, changing, and implementing policies can just as well help to explain the successful development of sustainable approaches and strategies and their effects on regional institutional systems.

Second, knowledge plays an important role in the development of institutional systems, to say in economic sectors, in society or in politics. The generation of new knowledge and learning processes may lead to technological as well as social innovations. The transfer of information into the institutional mindset of actors and in turn its effects on the applied practices, is the way to initiate sustainable action. The complex dynamics behind the processes of innovation are the key to understand how change impulses arise. This also means that new sustainability strategies must be considered as innovations. Despite this long-standing insight in policy research, the knowledge factor has so far been considered rather as a tool for reproducing political agency

than a determinant to explain policy making processes (e.g. Larner and Laurie 2010; Prince 2014a).

Thirdly, economic development strategies also deal with the question of which values and what economic understanding should be used to develop regional economies. There are currently numerous initiatives to support economic growth, although since the Club of Rome (40 years ago!) it has been scientifically and politically known that a socio-economic system based on unlimited growth is not compatible with the ecological limits of the earth and causes many problems in social terms (Meadows et al. 2004). Whether economy is considered an independent entity, or an integrated part of society and the ecosystem depends on the state of mind, which means it builds on knowledge, values, and norms of an individual. The emergence of numerous, decentralized movements towards a sustainable economy and private action are evidence of a nascent rethinking of the prevalent neoliberal understanding of economy. Changed institutions therefore play a decisive role in the success of sustainable approaches (Strambach and Pflitsch 2020). Appropriate policies promoting regional economies are thus able to contribute to this development by initiating and legitimizing these institutional changes.

Of course, understanding these complex processes is challenging. Nevertheless, for several years, scientists have been trying to research the Geographies of Sustainability Transitions by focusing regionally occurring socio-spatial dynamics. This thesis contributes to that. For sustainability requires good strategies, thorough knowledge and new notions of the economy and society of tomorrow.

1.1 Objectives and Research Questions

The topic of sustainability transitions was only recently taken up in human geography (Coenen et al. 2012). The approach brought a spatial perspective into sustainability transition research and thus expanded the focus of analyzes beyond distinct sectors (regimes). Although attempts were made to integrate spatial concepts into ST research even before the GeoST debate started (e.g. Geels 2011; Hodson and Marvin 2010), there was still a relatively narrow scientific focus on socio-technical regimes and their development. In particular, the influence of place-specificity on the characteristics of transitions remained excluded.

GeoST tries to fill this theoretical gap or at least tries to reduce it. While some conceptual developments have been made in the past years, the framework of GeoST remains open and not clearly defined. Hansen and Coenen (2013) wrote that the main aim is to enable alternative frameworks for analyzing the spatial components in sustainability transitions. Since then, different directions in GeoST research can be identified, which take up elements from other research areas such as human/economic geography, innovation and organization studies or globalization literature (e.g. Murphy and Smith 2013; Binz and Truffer 2017).

Especially the evolution of institutions provides an explanatory approach from a socio-spatial and politico-spatial perspective gaining more and more interest in GeoST research (Strambach 2010; Boschma et al. 2017; Strambach and Pflitsch 2020). Its basic argument is that changing institutions lead to adapted practices that create regional sustainability. Recently, Strambach and Pflitsch (2020) developed a new methodology for mapping and analyzing institutions and their influences on regional transition paths. This shows that GeoST retained conceptual and substantial openness to this day and even advocates interdisciplinarity and experimental epistemological approaches (Hansen and Coenen 2015). Against this background, this thesis contributes to the debate about which concepts may be useful for an improved spatial understanding of the GeoST by focusing on the following objectives:

1. To explore how specific actors, dynamics, and pathways contribute to sustainable regional development

The openness of the GeoST debate allows an exploratory approach to answer this question. Examining the integration of existing concepts and their contribution to GeoST research is therefore the starting point for this thesis. The title of this thesis already indicates that the example of creating new economic development strategies will be used to understand how sustainability is embedded in the practices and institutions of organizations (micro-level) and regional/supra-regional institutional systems (macro-level). Politics and administration play an essential role for the creation of these strategies (McCann and Ward 2013). Nevertheless, there are especially theoretical deficits regarding the notion of knowledge and its institution-changing influence on central policy-making processes. Therefore, the second objective of this Thesis is:

2. To capture knowledge dynamics in policy-making processes

Institutional changes and sustainable practices occur on multiple scales. Interdependencies among these institutional levels entail regionally specific development paths to emerge over time (Strambach and Halkier 2013). Accordingly, policies try to tackle problems on different levels (Allen and Cochrane 2007; McCann 2008). For example, organizational development processes that are based on sustainable policies can lead to reformed practices which contribute to enhanced sustainability of regional development paths. However, elaborated methods and theories are still emerging to understand the dynamics and mechanisms involved in the interplay between organizations and their surrounding institutional systems (Strambach and Pflitsch 2020). The third objective of the doctoral thesis therefore intends to contribute to reducing this research gap.

3. To analyze mechanisms of regional institutional change induced by the interplay of organizations and their systemic environment

The thesis pursues these objectives based on the following research questions. Even though the questions are derived from the theoretical framework detailed later in this thesis, an overview of the main research fields should be given at this point. According to the objectives, the main research question is:

MQ	How can Policy Mobilities, Knowledge Dynamics and changes in regional institutional systems contribute to a better understanding of the Geography of Sustainability Transitions?
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To answer this question, the following three sub-questions are derived in the further course of the thesis:

SQ 1	How can processes of Policy Mobilities be better understood through the integration of Knowledge Dynamics?
------	--

SQ 2	How do Policy Knowledge Dynamics influence the invention of new (sustainable) policies?
------	---

SQ 3	How does the orientation of organizations towards sustainable policies lead to gradual institutional changes on the micro-level and the macro-level?
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1.2 Outline

This thesis is divided into five parts (Roman numerals). Part one introduces the topic of the thesis and sets out the motivation as well as the objectives and research questions.

Part two presents the theories used. While a brief overview of the status quo of the Geographies of Sustainability Transitions concept is given, the second section focuses central elements of the Policy Mobility approach. The latter also includes a discussion of existing theoretical gaps. After that the complementary elements of the Knowledge Dynamics approach are outlined, which are suitable to also integrate micro-level dynamics of knowledge in policymaking processes. In addition, with the Regional Transition Paths to Sustainability, an idea is introduced that particularly addresses institutional changes in regional systems. The part closes with combining the three theories and positioning them in the current framework of GeoST.

The third part outlines the methodologies used in the empirical contributions of this thesis. The usability of case studies research for elaborating the three theoretical complexes will be discussed, emphasizing the advantages and limitations of the approach. The sub-chapters detail the context of applied qualitative methods and display the justified selection of the case studies. In addition, advantageous and critical aspects of the Action Research approach as well as possible solutions to obstacles in its application are discussed. Since the author of this thesis was employed by the consultancy that played a central role in both case studies, Action Research turned out to be an important data collection method.

Part four presents the papers of this cumulative thesis. Initially, the papers are positioned in the theoretical framework explicated in part two. In general, the papers deal with different aspects of GeoST. Nevertheless, they share the subject of institutional changes that is crucial for the development of organizations and regions towards sustainability. The first paper shows in detail the synergies of the PM and KD approach and develops a structure for further studies to make these complex policy knowledge dynamics empirically tangible. Based on this, paper

two examines a policy invention project and shows, by analyzing knowledge dynamics and practices, impeding and supporting factors of the process. In paper three, the focus is set on a case study analyzing the interdependencies between changing practices of a business development organization and the institutional systems it is embedded in.

The central empirical results are positioned in the context of the research questions in part five. In addition, policy recommendations are derived to enable political support for regional sustainability transitions. The thesis concludes with a discussion of the limitations of this work and outlines potential avenues for further research in this field. Now, let's start.

II THEORY

2 Theoretical Background: Policy Mobilities, Knowledge Dynamics and Regional Transition Paths to Sustainability

In this section, the theoretical background to this thesis will be outlined. Figure 2.1 depicts the different strands brought together to gain insights into the Geographies of Sustainability Transitions.

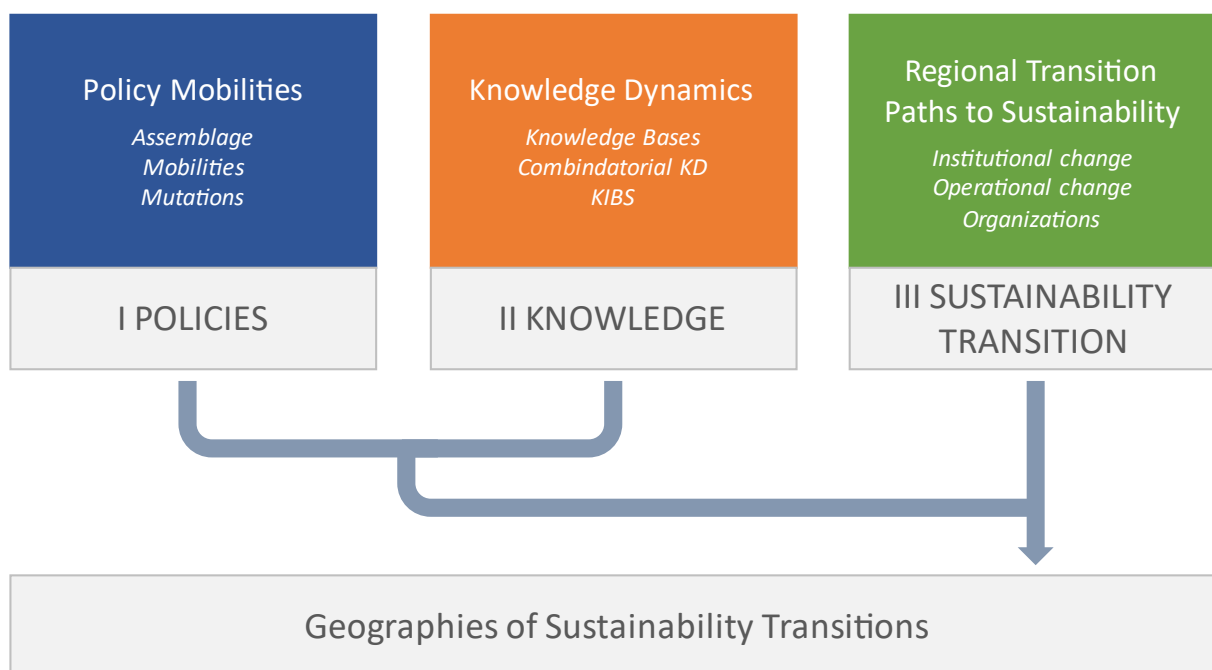


Figure 2.1: Theoretical framework of this thesis

First, in Chapter 2.1 an overview about the status quo of the overarching concept of Geographies of Sustainability Transitions is given. By discussing the relationship and the differences to Sustainability Transitions research the integration of the other theory blocks applied in this thesis is framed. Chapter 2.2 then summarizes the key elements of the Policy Mobilities concept, which can provide valuable insights for explaining the diffusion of sustainability strategies. Together with the theoretical explanations on knowledge bases and knowledge dynamics in Chapter 2.3, a coherent overall concept is created that forms the basis

for the papers 1 and 2 in this thesis. Chapter 2.4 presents the approach of Regional Transition Paths to Sustainability (RTPS) that enables examination of gradual and long-term regional institutional changing processes. In which ways these three theoretical blocks contribute to research on the Geographies of Sustainability Transitions is briefly discussed in the respective chapters and will be looked at in detail in the conclusive part of this thesis. Furthermore, research questions and the papers (presented in section IV) are positioned in the theoretical framework of this thesis.

2.1 Geographies of Sustainability Transitions

Today, as it was decades ago, environmental problems exist in numerous domains and at different scales. Even before the currently accelerating digitalization of life, it was apparent that many ecological problems are caused by the interplay of technological and socio-institutional changes. As a prominent example, the invention of the automobile over 100 years ago led to a significantly changed material (e.g. highways, petrol stations, parking lots) but also immaterial world (e.g. mobility behavior, conflicts with other road users). Such drastic changes over a longer period of time are termed transitions. The various domains in which transitions take place are referred to as socio-technical regimes in sustainability transition research (Markard et al. 2012).

Against the background of climate change and the challenge of maintaining healthy ecosystems, researchers address the question of how sustainable technologies and practices arise. Under the heading of Sustainability Transition research, multiple concepts (e.g. MLP, SNM, RIS) were applied trying to answer this question (Hargreaves et al. 2011; Markard et al. 2012). Since 2010, the spatial component of ST was brought into greater focus, as geographers took up the topic (Lawhon and Murphy 2012; Nevens et al. 2013; Raven et al. 2012; Coenen and Truffer 2012; Hansen and Coenen 2015). Since then, scientists have integrated spatial concepts into ST research from a relational, evolutionary, and institutional perspective (Mans

2014; Hansen and Coenen 2015). To this day, however, GeoST is not a clearly defined field of research, but rather comprise several approaches that are dedicated to the spatiality of sustainability transitions (Binz et al. 2020).

To draw an interim conclusion on the GeoST research, to discuss new approaches and to record future research paths, leading scientists in this field organized an online lecture series in autumn 2020, which was made available to the public on YouTube (keyword: Geography of Sustainability Transitions). Accordingly, GeoST has successfully integrated geographic notions into ST research and thus enabled significantly more detailed analyzes of occurring place-specific, multi-scalar and supra-regional dynamics in ST (Binz and Truffer 2017). GeoST thus revealed that transition paths are not homogeneous but are shaped spatially by institutions and practices and vice versa (Strambach and Pflitsch 2020; Boschma et al. 2017). This notion facilitates explanation of uneven development of regions as well as comparative studies from which policy recommendations can potentially be derived.

While some useful additions to the rather sector-centered ST research have been made, numerous aspects of the GeoST framework remain fuzzy. What are the main research gaps that should be addressed? What are key concepts? To what extent can generalizable policy recommendations be derived from the findings? What is ‘sustainability’? The point to make here is: GeoST is an emergent, evolving, and interdisciplinary field of research combining sustainable transitions and their driving socio-spatial dynamics.

Despite the heterogeneity of possible approaches that may be applied to examine GeoST, several studies focus institutional change and its impact on transition paths (e.g. Binz et al. 2012; Coenen et al. 2012; Bulkeley et al. 2016; Ehnert et al. 2018a). However, through interdisciplinary engagement, a much more detailed understanding of the mechanisms underlying institutional dynamics can be obtained. Against this background, this thesis introduces the concepts of Policy Mobilities, Knowledge Dynamics and Regional Transition Paths to Sustainability to explore their contributions to the GeoST. Integrating these three

strands enables in-depth examination of the spatial aspects of politics and policies, knowledge and changed institutions and practices in sustainable transition paths.

2.2 Policy Mobilities

The diffusion of policies is a key factor in understanding contemporary politics. Political science scholars have been studying the processes of diffusion (Walker 1969), lesson drawing (Rose 1991) and policy transfer (Dolowitz and Marsh 2000) since the 1960s. However, with the increasing complexity of policy exchange in times of globalization, deficits in the political science approach became increasingly apparent (McCann and Ward 2012b). The positivist approach, which basically suggests an unimpaired transfer of political strategies from place A to place B, neglects both the socio-spatial aspects and the multidirectional dynamics between the actors involved (Temenos and McCann 2013). Against this background, the policy mobilities approach has been gaining ground in political geography since the 2010s. This social constructivist approach stays in line with the upcoming mobilities paradigm in multiple scientific strands trying to grasp the multi-facet entanglements in their specific fields (Sheller and Urry 2006; Sheller 2017). Considering the spatial component, *Geographies of Policy Mobilities* were created, decisively contributing to the understanding of the diffusion, change and implementation of problem-solving strategies (Peck 2011; Cochrane and Ward 2012; Temenos and McCann 2013). This section outlines important elements of Policy Mobilities, which forms the theoretical basis for the first two articles in this thesis.

2.2.1 Geographies of Policy Mobilities

The *Geographies of Policy Mobilities* focus on aspects of the development of policy assemblage as well as mobilization and mutation processes (Temenos and McCann 2013). Before turning to these theory elements in detail, it is essential to define what is actually meant when speaking of ‘policies’ and ‘Geographies of Policy Mobilities’? Policies are recognized as ‘guidelines and

models for action in governance that vary in their level of formal codification or specificity and in the degree of power with which they can be enforced' (Martin 1997). In this sense, policies are concepts aiming to reach specific results. The level of success or failure is not important for the definition although recently its social construction is being increasingly considered in the scientific literature (e.g. Lovell 2017; Temenos and Lauermann 2020). Moreover, topics of policies can vary from drug abuse to health system reformation, to economic promotion on multiple scales or urban sustainability projects. In this respect, conceptual research in this field does not focus which topic the policy is about, but what 'mechanisms' are behind the process of policy making and what implications these 'mechanisms' have for interregional relations. Another way of understanding policy is by seeing it as an assemblage of texts, bodies (policy actors) and the networks they are creating (Prince 2012a). This notion heavily extends the field of acknowledging what is included in a policy and what is not. It defines policies as socially constructed entities and results of multi-sided interconnections between numerous agents.

To grasp this multi-facet dynamics affecting policy-making the Geographies of Policy Mobilities were developed by combining three different and separately existing strands of scientific literature (Temenos and McCann 2013). First, aspects of Policy Transfer in its political science understanding function as the basic elements. Policy Transfer theory is therefore an original version of Policy Mobilities combined with new ideas of how processes of policy making should be conceived. Several explanatory lacks, especially an underestimation of conceptualizations of scale and space, was unsheathed whose analysis is fundamental for a better understanding of ongoing processes from a geographical-scientific point of view (ibid).

Second, the concept of Mobility, originated in the discipline of sociology, is applied to involve all processes occurring in every location on every scale embraced in policy making. Insofar, the focus of PM research enlarges to the connection between the social and spatial aspects of policy transfer and its implication for the relations between different places. In this sense, places function as locations for social processes, but at the same time, more importance

is attached to global connections and dynamics as well as the consequential effects on local conditions. Thus, a network of cities functioning as ‘moorings’ or nodes is created (Temenos and McCann 2013). The Mobility approach can grasp socio-spatial implications right at the several locations involved but lacks in explaining the occurrences impacting policies when they are in motion. Important here is that local circumstances have a considerable influence on the peculiarity of a mobile policy. However, it is assumed that policies change ‘on their way’, i.e. in spaces beyond the specific local places policies are amended (ibid: 346).

Finally, to overcome this theoretical deficit the integration of the topic of scale was an expedient complement. On the one hand, new spaces can be considered as decisive for policy circulation and mutation (e.g. the internet, conferences and informal meetings). Inside those spaces, resistances can be formed, persuasion can be conducted, or coalitions can be established. On the other hand, the concept of scale used in PM reformed orthodox notions of cities as clearly marked as well as socially and politically defined entities. Rather, the focus is on multi-scalar impacts of specific institutions setting the frame of how policy ideas are circulated. In turn, the institutions themselves are not recognized as encapsulated entities but are formed by the circumstances they are in contact with. Correspondingly, PM emphasizes the interplay of different scales connecting global flows of policy knowledge with the specific local socio-spatial conditions (Temenos and McCann 2013). Accordingly, Larner and Le Heron (2002: 765) have termed these spaces as ‘globalizing micro-spaces’.

All the aspects in this first overview are summed up in the notions of policy assemblages, mobilities and mutations as key elements of PM research (Temenos and McCann 2013; McCann 2013; McCann 2011a; 2011b). In this sense, McCann (2013:6) defines Policy Mobilities as ‘the socio-spatially produced and power-laden inter-scalar process of circulating, mediating, (re)molding, and operationalizing policies, policy models and policy knowledge.’ The three strands examined above are brought together, developing a differentiated model of

how policies get mobilized, mutate, and are realized in places and spaces by the interplay of global flows and local conditions.

Assemblage

The term ‘assemblage’ grasps these interconnections. It thus “encourage[s] both an attention to the composite and relational character of policies and cities and also to the various social practices that gather or draw together diverse elements of the world into relatively stable and coherent ‘things’” (Anderson and McFarlane 2011: 124). Moreover, these compositions can be unexpected and nonlinear. Another serviceable definition of ‘assemblage’ is formulated by Allen and Cochrane (2007: 1171), as they accentuate the interconnections, dependencies, and inducements of the several elements involved in the development of a certain way of governance, also transferrable to the social creation of policies or other entities.

Applying the assemblage approach to PM means to understand policies ‘as assemblages of texts, bodies and the networks they are creating’ (Prince 2012a: 198). Therefore, the interplay of behavioral implications of involved actors which are in turn shaped by the circumstances they are embedded in as well as their social linkages are to be considered as important aspects constituting a policy’s content. In this respect, the focus of numerous studies on urban policy mobilities is laid on “how and with what consequences urbanism is assembled through policy actors’ purposive gathering and fixing of globally-mobile resources, ideas and knowledge” (McCann and Ward 2012a: 43; Temenos et al. 2019).

Mobilities

The notion of mobility in PM was originally introduced to better grasp all related policy making processes that were excluded from political science Policy Transfer theory (McCann 2008). There are four essential processes regarding policies in motion. First, and complementary to mobilities, the spatial fixity of policies; second, the formation of globalizing micro-spaces;

third, processes of policy mobilization; and fourth, the homogenization of municipalities' policies induced by their mobility. In combination with thoughts on the creation of assemblage Peck (2001:793) understands policy mobility as 'one moment in a wider, transformative process, involving the ongoing mutation of policies and policy regimes in a manner that seems to be more deeply cross-referential and relativized than ever before'.

Let us have a closer look on the four central processes of policy mobility mentioned above. First, the examination of spatial fixity strongly refers to what the assemblage approach offers for analyzing the Geographies of PM. It comprises the cross-referential interplay of different elements which constitute the emergence of specific scales of political decision making, debates and conflict as well as the production of space in a temporarily definite extent and territorial organization (Martin et al. 2003). However, the mobilities occurring in connection with those assembling processes are ineffectual without locally grounded material objects. Therefore, mobility implicates the existence of non-fixed and spatially fixed elements and refers to the importance of their creative interplay (Harvey 1989).

Second, the production of so called 'globalizing micro-spaces' (Larner and Le Heron 2002) embraces affords of policy agents yielding their specific expertise, skills, and interests. The term 'globalizing' refers to the co-presence of actors and face-to-face learning assembling ideas and knowledge from elsewhere in a particular location (McCann 2011a). Here, policies are discussed, renegotiated, and changed through accomplishing new information about experiences, interests, and local conditions from multiple places (Allen and Cochrane 2007; Andersson and Cook 2019). Thus, to bring in new information and to debate the transfers of policies to other locations strongly impairs the conditions under which policies get mobilized and potentially mutate (Cook and Ward 2012).

Therefore 'globalizing micro-spaces' influence the conditions of how policy models are mobilized and extra-locally spread. This refers to 'mobilization' as the third process of policy mobility accentuated in PM research. It recognizes, besides the analysis of micro-scale

mobilization practices, wider structures of policy mobility. For example, policies are made mobile by bundling them to comprehensive packages and assigned as ‘best practice models’ which led to ‘fast policy’ creation (Peck 2002; Peck and Theodore 2010b; Brenner et al. 2010). Consequently, circuits of policy knowledge and the mobility of policies have heavily accelerated in the past years (Prince 2012b).

Given the fact that ‘off-the-shelf’ policy packages (McCann and Ward 2012b: 327) are primarily transferred, though by no means adapted everywhere in their original form, the process of homogenization is a concern in PM research. However, it is not important whether homogenization occurs or not, rather it is presumed that while policies are in motion their contents may mutate. In this sense, policies “do not arrive at their destination in the same form as they appeared elsewhere. Yet they are not entirely different. They still bear a strange familiarity that exhibits and encourages some degree of ‘policy convergence’ across the world” (Temenos and McCann 2013: 349f.). Therefore, homogenization to some degree is presumed, yet the focus of research must be on institutionalization and legitimization processes of the transferred policies.

Mutation

In PM policy mutations can never be understood as separate processes. Like aspects of *assemblage* and *mobilities*, analysis of different elements’ interplay is key to extend the knowledge about practices and mechanisms leading to policy change in motion and at distinct places (Savage 2020). Given that policy models constantly circulate inside networks, mutations can occur during almost every situation, ranging from mobilizing and transferring to topical debates or localization (Robinson 2015).

Experts play a significant role as depending on their ascribed reputation they can bring in new aspects, strike new paths or denunciate specific policy contents; processes that will probably lead to policy mutations (Cook and Ward 2012). Infrastructures shaping the flows of

policy ideas, models, and knowledge, are therefore tools utilized by transfer actors to engage in the related processes and simplify the transfer of policies from one location to another (Collier and Ong 2005; Prince 2010b). The accelerating circulation of policy models, ideas and knowledge produces not only new spaces in which mutation of policies can occur incidentally but offers more and more possibilities to restructure them “through the labor of those in the policy mobility ‘business’ or ‘industry’” (Cook and Ward 2012: 140; Peck 2002). The main reason to comprehend those changes of policies in motion is the forging of connections between multiple actors during the transfer process which constitute several shifts of power-relations and steadily alters the level of knowledge and expertise in the appropriate topic. Therefore, this assemblage-understanding and the particularity of the resulting socio-material circumstances almost necessitates substantial adjustments of policies over time (McFarlane 2009; Prince 2010b).

The key elements of the approach outlined so far laid the foundation for different directions within PM research. The following chapter roughly outlines the path of previous research up to the present state.

2.2.2 PM – ‘A rolling conversation’

Policy Mobility is not a static, final framework for analysis but ‘a rolling conversation’ as Peck (2011: 774) puts it. Due to its general openness to theoretical innovations and inter-disciplinary research, the approach has developed both from a theoretically point of view and in terms of content over the past decade (Temenos and Baker 2015; Cook 2015).

For instance, there is an ongoing debate about the use and benefits of the complex assemblage approach. Even today there is an almost defending debate about whether and to what extent it supports PM research and enables empirical research in this field (e.g. Savage 2020). By integrating institutions, their deterministic influences on policymaking and their

changes, differentiated comparisons of PM processes were made possible (e.g. Schäfer 2017). Moreover, understanding the notion of mobility and positioning PM within the scientific landscape continues to play a role and is subject to different interpretations (e.g. Lewis 2020 on mobilities; Robin and Nkula-Wenz 2020 on place, space and time in PM)

After the PM approach was defined somewhat more clearly in its main features, which were described in the previous chapter, it has been used in numerous studies on the development of policies to this day. The spectrum of the analyzed policy fields includes, for example, airports (Bok 2015), housing (Brill and Conte 2020), light festivals/tourism (Giordano and Ong 2017), education (Gulson et al.), energy governance (Levenda 2019), drug policy (Temenos 2017), criminology (Newburn et al. 2018), urban sustainability (Adscheit and Schmitt 2018) and many more. Several studies refer to the diffusion of neoliberal strategies and policies, so that these must be seen as embedded in an institutional and historical context (e.g. Fry et al. 2015; Pow 2018; Thompson 2020).

In addition, the term *mobilities* was differentiated into various processes that are also employed in this thesis. Hence, policies are invented (*invention*) or further developed (*innovation*) through learning effects or the combination of different strategic approaches (Howlett 2014). This process is closely related to the explanations in Section 2.3, in which knowledge dynamics help to gain a deeper understanding of the creation of new policies. Also, the following processes, as Paper 1 points out, are strongly driven by Knowledge Dynamics. Through the work of actors, policies are *mobilized*, *transferred*, and *localized* regionally in various ways (Peck 2011; Gotham 2014; Robinson 2015). As described above, the integration of knowledge may result in policy *mutations* at any time in these processes. Thus, these mobilities lead to the fact that policies are spread and changed through the interplay of globally floating knowledge and locally specific circumstances (McCann 2011a; Prince 2017). Figure 2.2 schematically summarizes the central processes in PM.

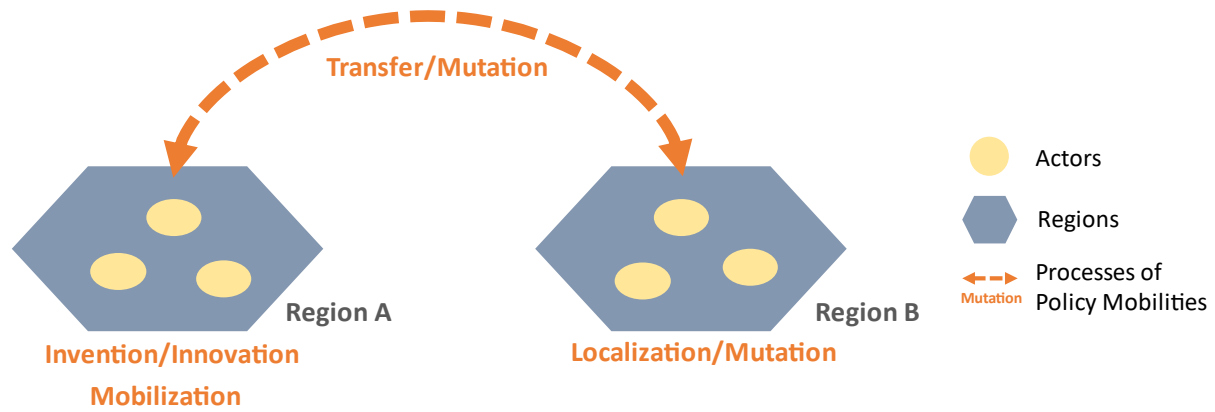


Figure 2.2: Processes of Policy Mobilities

Recently, PM topics that were previously criticized have moved into the scientific focus. For a long time, PM research was assumed to be biased towards successful policies. A differentiated question of what constitutes policies' success and failure resulted in numerous studies that enabled useful lesson drawing (e.g. Stein et al. 2017; Bok 2020; Wells 2020). In this context, Lovell (2017) pointed out that the perception of a policy as failure or success is socially constructed and can at best refer to certain parts of a policy. This changed understanding of success and failure also plays a crucial role for studies that analyze PM processes of sustainable policies. That means, even if transfers of sustainable policies are considered as unsuccessful, lessons could be derived for future projects (Chang 2017; Nciri and Levenda 2020). This is also a crucial point for understanding and evaluating the connection of PM elements and the RTPS approach (see chapter 2.4).

2.2.3 The role of Consultants and knowledge in Policy Mobilities

As stated above, recently PM research was criticized for its bias on successful policies and undifferentiated cognition of partial mobilization and immobility of policies. Multiple new studies recognize this point by examining the reasons of policy failure to draw lessons for future projects (e.g. Baker and McCann 2018; Malone 2019). The same holds true for the recognition of knowledge that was rather undertheorized and focused on its strategic usage for assembling

specific political agency in the PM approach. The topic recently gained more and more attraction from scholars trying to specify and refine the theoretical and empirical role of policy knowledge in PM processes (e.g. Frantzeskaki and Rok 2018; Heino and Hautala 2021). The first two papers of this thesis contribute to this question as well by integrating the notion of knowledge dynamics arguing that PM processes are inherently knowledge driven.

However, policy knowledge was not completely excluded in previous studies. Rather, specific actors such as technocrats, policymakers, politicians etc. represented the embodiment of knowledge (Larner and Laurie 2010; Prince 2014b; 2016; Ball 2017; Pow 2018). Temenos and McCann (2013: 344) underline this by stating that policies ‘are not moving around on their own but people move them around for particular purposes’. In early studies on PM, consultants took a special position, as they played a decisive role in the mobilization especially of neoliberal (urban) policies (e.g. Fry et al. 2015; Ball 2017). Policy consultants are understood as ‘non-state, private sector, profit-driven actors that are nevertheless involved in policy process through (usually) contractual arrangements with state agencies’ (Prince 2012a: 195). As a subject of research consultants are considered as ‘sociologically complex actors, located in (shifting) organizational and political fields, whose identities and professional trajectories are often bound up with the positions and fixes that they espouse’ (Peck and Theodore 2010a: 170).

With regards to embodied policy knowledge, Prince (2012a) describes particularly two tasks of consultants that detail their specific character. First, consultants steadily must try to extend their knowledge. It is fundamental to develop a cognitive advantage to other actors, legitimizing their central role in the policy making process and therefore their importance for the municipalities’ work. Knowledge in this sense ‘makes the consultant’s living’. The multiple ways of how this knowledge is produced, mobilized, and used in practice was primarily employed to get a differentiated picture of the consultant’s role inside policy networks. Second (and strongly overlapping with the first task), consultants should be trying to produce and sustain a division of state-actors and expertise. Of course, there is a strong interconnection of

these two domains, as politicians have the authority and final say about the policies that are supposed to be set, and the domain of the consultant's expertise that has a particular influence on the character and content of the policies. Both endeavor to 'create order in a chaotic world' (Prince 2012a: 198) through cooperation influencing and shaping each other's work. The government is commonly recognized as a rationally evaluating, acting, and organizing all-embracing entity. Consultants, in turn, shape the processes of policy making through their everyday practicing of specific operations. Hence, an analysis of this interconnection considered the main source to enlarge the understanding of consultants' influence on Policy Mobilities.

Through their advanced knowledge on policies McCann and Ward (2010: 182f.) describe consultants as 'idea brokers' which are structurally advantaged to better mobilize, broker, translate and promote their policy ideas. To assume a great influence of consultancies on the relationality of regions through their work and by spreading specific policy contents means that they indeed take a powerful position in PM processes and for the (re)production of political agency and the relational proximity of regions. In this sense they are on the one hand socially produced by several practices of ascribing certain importance to them. On the other hand, consultants are due to their specific reputation in power to create or at least shape influential narratives about the 'truth' (McCann 2008: 888; Cook and Ward 2012).

What has become clear is that policy knowledge plays an important role for the dynamics and processes in PM. However, original theorizations strongly focus on the actors who generate and utilize knowledge as a tool for assembling political agency on a macro scale. In the next chapter, this partial perception and therefore rather unsatisfactory understanding of policy knowledge is supplemented by the aspects of the knowledge dynamics approach. Some useful theoretical synergies were identified (Paper 1), which also enable and structure in-depth empiricism in this field (Paper 2).

2.3 Knowledge Dynamics

A few years ago, Baker and Temenos (2015: 825) asserted that Policy Mobilities must explore ‘the processes, practices and resources brought together to construct, mobilize and territorialize policy knowledge’. The request clarifies that research on PM treated knowledge in a rather rudimentary way, although the processes outlined above are generally perceived as knowledge driven. However, the openness to considering synergies with other scientific strands makes it possible to close this conceptual gap. To achieve this, the Knowledge Dynamics approach provides some parallels and useful additions that make both theoretical and empirical considerations of PM conceptually more profound.

2.3.1 Knowledge Bases

Knowledge Dynamics describe the multi-facet and multi-scalar cumulative and combinatorial processes of so-called knowledge bases. The Differentiated Knowledge Bases (DKB) approach offers a typology of knowledge types described as analytical, synthetic, and symbolic (Asheim 2007). Knowledge bases of specific actors (organizations or individuals) determine the characteristics of interactions that can lead to new innovations. In this respect, the KD approach differs from previous concepts (e.g. innovative milieu or territorial innovation models) in that it focuses and explains the occurring processes (Moulaert and Sekia 2003).

The different types of knowledge have a decisive influence on shaping actors’ interactions (Grillitsch et al. 2018; Martin and Moodysson 2013). Analytical knowledge is particularly useful for the theoretical understanding of entities. This knowledge is easily codifiable, for example in the form of data, scientific publications, or formulas. It is therefore often used in R&D-based innovation areas such as the chemical industry, biotechnology, pharmacy, and the like (Asheim and Coenen 2005; Asheim 2007). Due to the high degree of formalization, analytical knowledge can be easily transferred and therefore used for innovation processes that involve spatially separated actors.

Synthetic knowledge refers to "solving problems". It is thus based on the experience of individual actors and can only be partially codified (Martin and Moodysson 2013). Innovation processes that are shaped by this type of knowledge are mainly found in the engineering sector, e.g. in mechanical engineering or in the automotive industry (Asheim and Coenen 2005). In contrast to analytical knowledge, the social context and spatial proximity among involved actors represent a determining component for the synthetic knowledge type as the exact requirements and problems to be solved can only be captured through close interactions (Martin 2013). Innovation processes therefore often include processes of learning-by-doing, experimentation, simulation, and practical work, which in addition to formal, codified knowledge also require tacit knowledge of the actors involved (Martin and Moodysson 2013).

Tacit knowledge becomes even more important in the symbolic knowledge type. This type was conceptually integrated later than the other two and relates primarily to innovation processes with a strong component of social construction, e.g. in the cultural and creative industries (Asheim and Hansen 2009). Since symbolic knowledge is socially constructed by the actors involved and can only be codified to a very limited extent, innovations are spatially and context-specific (Martin and Moodysson 2011). However, the low degree of formalization of symbolic knowledge makes empirical investigations difficult. Hence, the DKB approach was criticized as the different types of knowledge are not clearly delimited in practice and are therefore only insufficiently to grasp empirically (Boschma 2018; Manniche et al. 2017). In fact, actors' knowledge bases always combine different knowledge types (Asheim 2007). Nevertheless, the approach offers a differentiated theoretical framework for analyzing knowledge and the ways it shapes innovation processes.

However, to explain innovation processes, it is not only important to examine the composition of knowledge bases of the actors involved, but also their interactions. Knowledge is generated through interactions, which contributes to learning among specific actors (cumulative KD) or may be revealed through the combination of different knowledge types

(combinatorial KD). The latter is seen as particularly promising for initiating innovations. With a return to the complex challenges dealt with by certain policies, combinatorial knowledge dynamics bears the potential to better integrate knowledge into PM processes.

2.3.2 Knowledge Dynamics and the role of KIBS

The concept of knowledge dynamics refers to the development of knowledge through interactions between different actors over time (Strambach 2008; Halkier et al. 2010). Actors, e.g. organizations or individuals, are not understood as rationally acting entities, but are each institutionally embedded (Turvani 2001). In their origins, knowledge dynamics were therefore considered to explain the competitive advantages of specific companies (Nonaka et al. 2000). In other words, actors can acquire – through knowledge dynamics and the resulting innovations – advantages in a competitive environment over a certain period of time. This argument resembles aspects of PM, in which individual actors want to mobilize policies that benefit their own interests best. This analogy therefore remarks the foundation to bridge the two concepts, which is subject to the first Paper in this thesis.

While knowledge bases theorize the structure of entity-specific knowledge, KDs are process-oriented. A division into cumulative and combinatorial knowledge dynamics also aims to point out the characteristics of the knowledge generated. While cumulative KD improve and expand the specific know-how of an actor, combinatorial KD connect different knowledge types that may generate completely new ideas. In this sense, combinatorial KD are more likely to develop disruptive innovations (Schoenmakers and Duysters 2010). Figure 2.3 shows schematically the relationships between knowledge bases and knowledge dynamics. It shows that intra-organizational KD support the development and expansion of actors' knowledge bases (cumulative KD). Cross-sectional knowledge, however, occurs through interactions among different actors (combinatorial KD). Yet, both types of dynamics can lead to innovations.

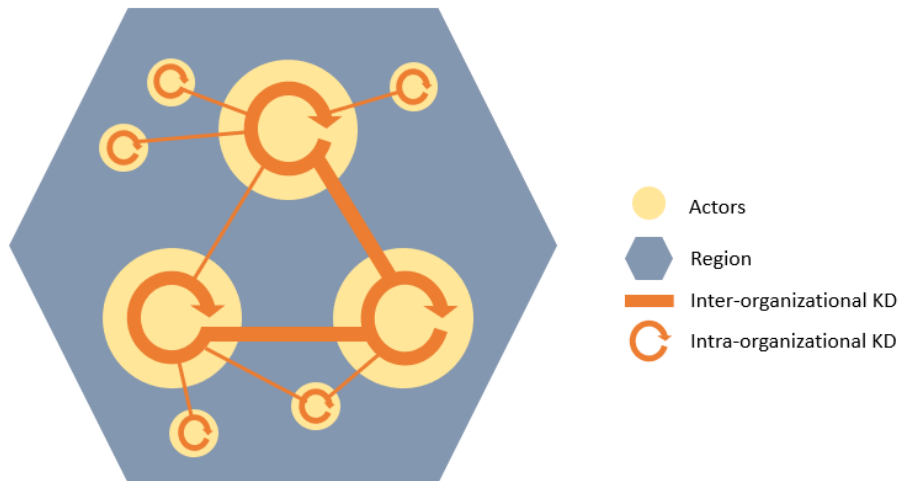


Figure 2.3: Connection between actor-specific Knowledge Bases and Knowledge Dynamics

The analysis of Knowledge Dynamics aims to understand where certain knowledge originates, how it develops and how it is used – even across specific regions. The approach thus considers the increasing mobility of knowledge (Crevoisier and Jeannerat 2009). This multi-scalar, multi-actor and evolutionary approach shows essential common ground with the assemblage approach in PM. Here, too, the specificities of occurring processes must be addressed by analyzing practices. Knowledge Dynamics and Knowledge Bases therefore represent a suitable addition to the PM theory framework from both a methodological and conceptual point of view.

Parallels between KD and PM can also be seen in the mobilization of knowledge. Through practices of modularization, standardization and externalization, knowledge is mobilized inter-regionally and cross-sectoral (Strambach 2008; Manniche et al. 2017; Butzin and Widmaier 2016). However, these practices do not arise without reason and by themselves but are promoted by certain actors. Knowledge Intensive Business Services (KIBS) are important actors who drive knowledge dynamics through their work (Strambach 2010). KIBS are characterized by offering knowledge as a product. Bridging this logic to the PM approach, policy experts and consultants can be perceived as KIBS. Correspondingly, many insights into the way in which

KIBS mobilize, transfer, use, and initiate innovations can also help to understand PM processes more profoundly.

Against this background, Figure 2.4 shows the schematic combination of Policy Mobilities and Knowledge Dynamics. It indicates that knowledge dynamics within and among actors significantly detail the regional and inter-regional processes of the PM approach (cf. figure 2.2). Since policies themselves can be considered as an assemblage of specific policy knowledge, related PM processes are themselves inherently knowledge driven. This main argument about the synergy of the two concepts is detailed in Paper 1.

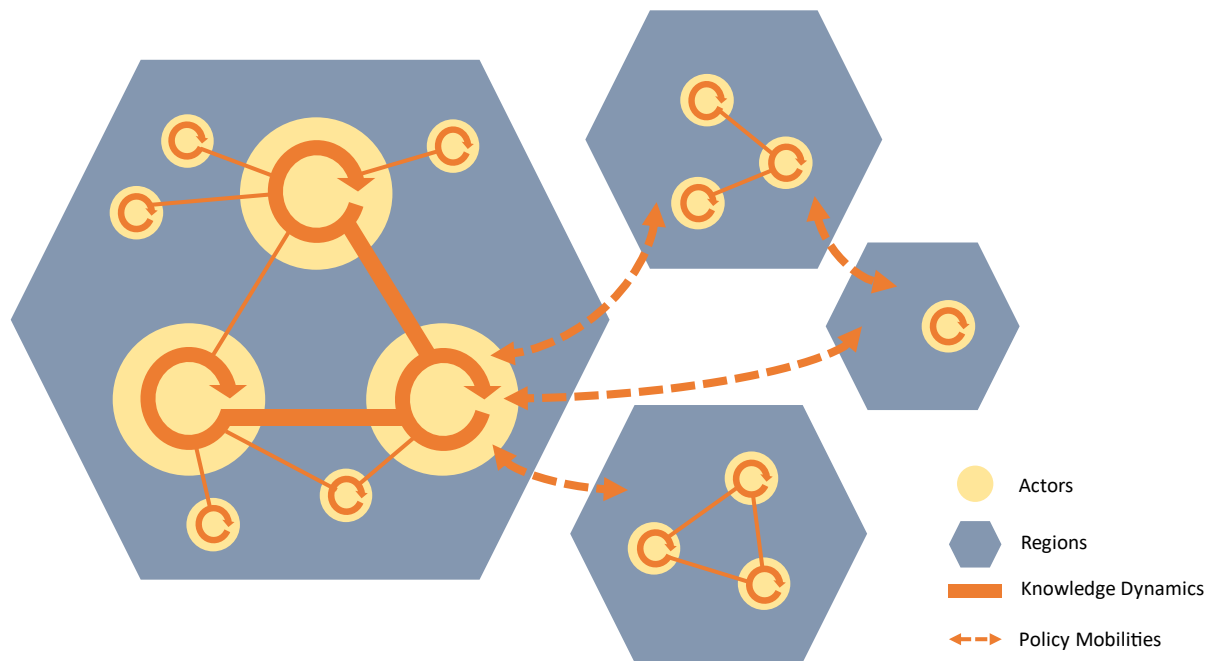


Figure 2.4: Combining PM processes und underlying (policy) Knowledge Dynamics

The analysis of combinatorial knowledge dynamics is also valuable for explaining sustainability transitions since it must bring together multiple areas of knowledge to solve specific problems (Coenen et al. 2012.; Cooke 2012). The integration of KD in the PM approach therefore not only details the theoretical perception of policy knowledge, but also enhances empiricism in this field as in-depth investigation of micro-level policy knowledge dynamics

complements existing literature on macro-level policy assemblage research. In this thesis, the papers in Part IV deal both conceptually and empirically with this topic in detail. Therefore, the first two articles ask:

SQ 1

How can processes of Policy Mobilities be better understood through the integration of Knowledge Dynamics?

SQ 2

How do Policy Knowledge Dynamics influence the invention of new (sustainable) policies?

Generalizable results on PM processes and the influence of policy knowledge also correspond to the contents of GeoST as they aim to explain the politico-spatial dimension of sustainability transitions. Like any other policies, sustainability-oriented strategies need to prevail in a contested arena and proof themselves as suitable alternatives to prevalent neoliberal policies. Another important question that arises from this point is certainly how these policies can lead to changed institutions at different levels. The approach of RTPS suggests a useful perspective for scientific examination of this question.

2.4 Regional Transition Paths to Sustainability

In ST research, numerous studies analyzed the role of institutional change and stabilization for sustainable practices and processes (e.g. Geels 2013; Johnstone and Newell 2018; Fastenrath and Braun 2018). While these studies are mostly limited to specific socio-technical regimes and their development paths, geographical approaches expand the understanding of institutional change dynamics by involving spatial concepts. Institutions are in this thesis understood as ‘a set of shared perceptions which tie all the individual, truncated mental models together’ (Kingston and Caballero 2009: 22). Focusing the role of organizations for stabilization and

destabilization of regional institutions, the RTPS approach introduces a neo-institutional view of detailing the Geography of Sustainability Transitions (Radinger-Peer and Pflitsch 2017; Strambach and Pflitsch 2020). The aim of the approach is to better understand the multitude of regionally specific transition paths and their spatial shaping. In their corresponding article, Strambach and Pflitsch (2020) argue that the emergence of new ‘organizational archetypes’ (Scott 2014) has the potential to simultaneously (de-)stabilize institutions and thus explain the diversity of RTPS and their spatialities. This organization-centered approach offers two useful additions to the explanations of PM and KD, whose combination also serve as the basis for the third article of this doctoral thesis.

First, examining organizations and their influence on changing regional institutions enables explanations for the multiplicity of regionally specific sustainable transition paths (Strambach and Pflitsch 2020). The dynamics and interconnections between short-term institutional changes and long-term transitions are understood as the key to understand these context-specific transition paths. Strambach and Pflitsch (2020) made a first attempt to capture these regional institutional dynamics by introducing a typology for this evolutionary, neo-institutionalist approach. Considering politics and policies as one part of (regional) institutional systems, PM research might add to RTPS by detailing the relationship among organizations, their institutional environment, and the role of policy and politics.

Second, the three approaches applied in this thesis may also complement each other epistemologically. As already described in the section 2.1 on GeoST, it is important to examine how existing concepts and methods for collecting empirical data can also be used to explain sustainable transition paths. Since there are numerous empirical approaches within the concepts of PM, KD and the debate about neo-institutional research, useful synergies also arise from a methodological point of view. This topic is discussed in Part III of this thesis.

To summarize, Figure 2.5 shows the central connections between the neo-institutional, organization-centered approach of RTPS and PM. It illustrates that organizations (actors)

through intra- and inter-organizational practices influence the regional institutional system in which they are embedded in. Practices and institutions thereby develop co-evolutionarily and thus determine the specificities of RTPS. Since regional institutional systems are in turn connected to other regions and system levels, gradual local changes in practices and institutions over time may also initiate larger transitions at higher system levels or other regions. The figure visualizes significant similarities to the schematic in Figure 2.4. This shows that, on the one hand, knowledge dynamics have a decisive influence on practices in PM as well as in RTPS. On the other hand, policy mobilities can be understood as one type of interdependencies between regions. By bridging the approaches, these analogies may enable to examine the politico-strategic dimension of RTPS in depth.

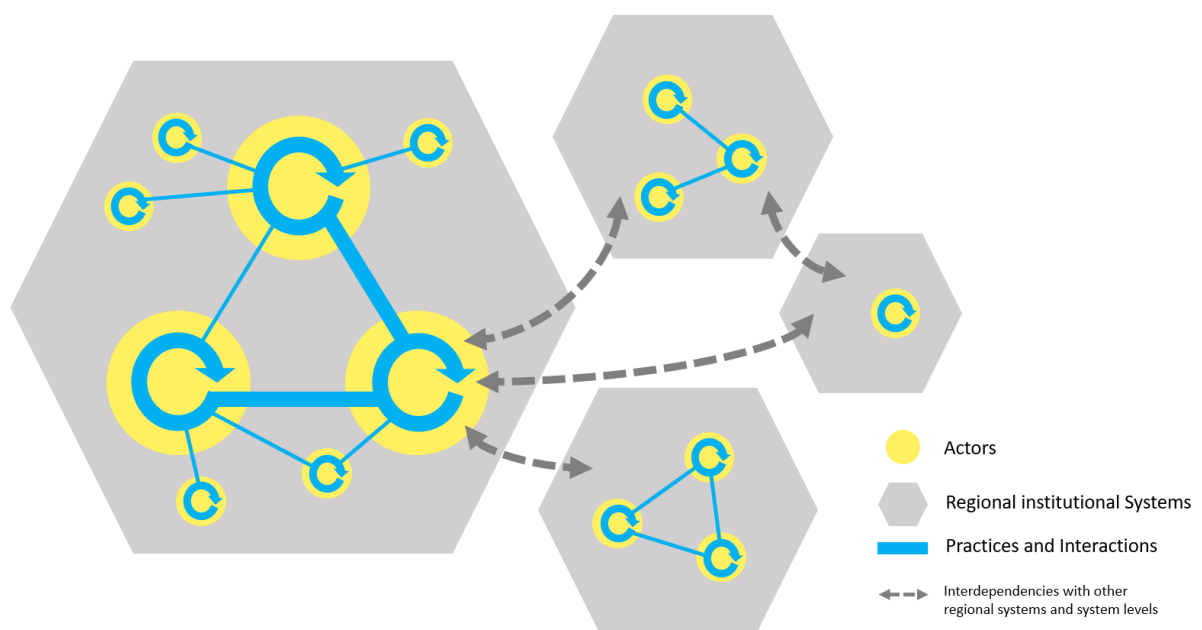


Figure 2.5: Regional and interregional dynamics for institutional change in RTPS

From an evolutionary perspective the RTPS approaches regional transition paths by analyzing individual organizations and their effects on the regional institutional system and beyond over time (Strambach and Pflitsch 2020). Figure 2.6 depicts this temporality by showing regional transition paths to sustainability due to changed institutions and practices and their

interdependencies to other regions or system levels. The starting point t0 visualizes the status quo without evaluating the relative existing sustainability of the specific regions. Endogenous gradual institutional and practical changes may initiate sustainability impulses in some regions (t1). The stabilization and legitimation of these new institutions can lead to major regional institutional changes over a longer period, which can be considered as a transition (t2). Moreover, uneven regional development can be explained by differences in terms of velocity and extent of institutional change. By successfully transitioning to sustainability, regions afterwards may serve as good practices or actively mobilize valuable experiences to other regions and system levels (t3). At all stages of regional development knowledge, e.g. through interacting individuals or mobile policies, is exchanged.

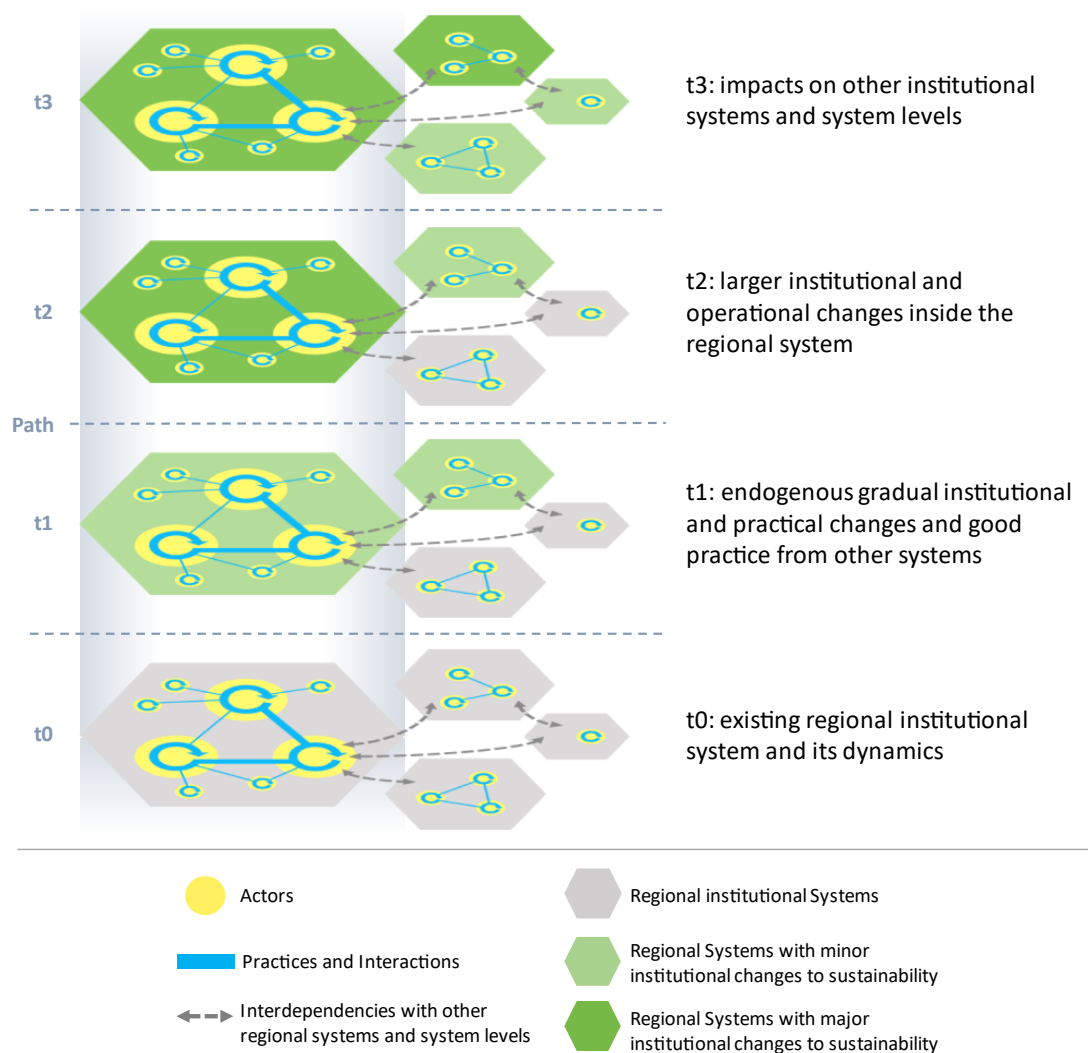


Figure 2.6: Institutional dynamics of regional transition paths to sustainability over time

Accordingly, the mechanisms influencing the interplay between gradual regional changes and long-term transitions could potentially be enriched by the PM approach explicating the political dimension of GeoST. As one aspect of this interplay, article three aims to examine the connection between policies (in the form of alternative economic models) as an impetus for institutional and operational changes in organizations and their institutional environment. Subquestion 3 of this thesis is therefore:

SQ 3

How does the orientation of organizations towards sustainable policies lead to gradual institutional changes on the micro-level and the macro-level?

Now that the theoretical strands applied in this thesis have been presented and the central research questions have been derived, the papers in Part IV contribute to these questions in detail. Of course, the limited scope of this thesis only enables the presentation of first results and ways to integrated research in this field. How these results can be understood in the context of GeoST and what future research avenues can be derived from it will be discussed later.

Since it has been argued up to this point that useful theoretical synergies exist between the approaches described above, the question now arises as to how these can also be brought together empirically. The next part therefore explains the methodological procedure utilized to realize the papers.

III METHODOLOGY

3 Methodology

This part will discuss the rationale for employing Case Study and Action Research for analyzing the processes of Policy Mobilities and RTPS. It will further present the data gathered and critically discuss the role of the author during the data collection process.

3.1 Epistemological Difficulties in Policy Mobilities Research

As a starting point, some considerations about the methodological tangibility of the theories presented in the previous part should be addressed. For example, Benson and Jordan's (2012) considerations on the epistemological difficulties of Policy Mobility studies have shown that empirical persuasion may reveal serious problems to deal with. The main reason for such worries exhibits the assemblage understanding of multiple aspects and elements of policy making from a constructivist point of view which are, caused by steady altering, reassembling and therefore a high degree of case-specificity, quite hard to examine in real life and scientifically generalizable. Yet, examinations on institutional changes and applied practices are key to grasping the dynamics of assemblages in both PM and RTPS (Anderson and McFarlane 2011). Accordingly, several scholars have outlined different approaches for a research agenda giving suggestions for expedient investigation in Policy Mobility (e.g. McCann 2011a; Prince 2012a; McCann and Ward 2012a).

Before surveying the specific empirical requirements of examining assemblages, McCann's (2011a) considerations 'towards a research agenda' constitute a first rough overview about the essential points to be aware of when researching this field. Central point of analysis is the 'need to understand specific social interactions in terms of wider processes, context forces, and structures and the related need to maintain a dual focus on fixity and flow, or territoriality and

relationality, in the study of society' (McCann 2011a: 120). Especially, practices of mobilizing, changing, and operationalizing policy models, ideas and knowledge embedded in globally stretched networks reveal essential insights into different contexts. Consequently, case studies are a legit form of gaining additional information on the practices employed in everyday policy making and the interconnections of local specificities and global flows of knowledge. This is an essential point to legitimize several case studies conducted in the past which expose multiple general conclusions which is a precondition necessary for this thesis, too. McCann (2011a: 122) terms this line of action a 'global ethnography' which will never be all-embracing caused by various methodological combinations possible with specific empirical foci that 'will paint a somewhat different picture of the character and consequences of urban policy mobilities and the global circuits of knowledge'. Therefore, the notion of geographically critical analysis requires the consideration of temporal, context-specific and cultural aspects framing empiricism on this topic (ibid).

Against this background, researching Policy Mobilities requires a careful consideration of the fleeting, constantly altering character of almost every related element. As it was indicated in section 2.2, the term assemblage conceptualizes this notion of bringing together different elements of near and far as well as their temporarily fixed variation depending on multiple socio-spatial circumstances compiling an entity (Anderson et al. 2012; Robbins and Marks 2010). In this regard, one essential point to examine is the issue of spatial relationality. McCann and Ward (2010: 182) advocate examining 'the various spaces that are brought into a being during the journey of a policy or program: a mixture of following the policy together with sensitivity to the particular territorial contexts at every step in the process of movement'. Therefore, qualitative empiricism is utilized best to perpetuate a relative flexibility and sensitivity to aspects that may not be expected when drafting research procedures but play a major role in real policy making (McCann and Ward 2012a). Of course, examining interregional relations and tracing flows of policy knowledge requires the direct involvement

in the rather ‘closed’ or separated practices of consultancies and other agents involved (McCann 2011b).

Thus, examining the practices of involved actors is key to understand the context-specific dynamics of Policy Mobilities (Prince 2012a). ‘Following the consultant’ and staying close to the daily practices ‘draws attention to the labor of assembling and reassembling socio-material practices that are diffuse, tangled and contingent’ (McFarlane 2009). Albeit this focus on specific practices that are locally bound wider contexts are by no means neglected. In contrary, embedding different practices in a greater frame of policy making, ideologies, enforcements strategies etc. is considered an expedient way to draw conclusions on the relational interregional and multi-scale policy mobilities (McCann and Ward 2012a). Participation and observations enable to embrace central practices shaping policy assemblages. Moreover, by doing so, consultants can be positioned accurately in the landscape of Policy Mobilities, disclosing their impact on changing hegemonic neoliberal institutions (McCann 2011a). Additional interviews with the central actors involved ascertain complementary information on the issue of producing relationality and institutional change. Case studies therefore provide a suitable empirical site to explore the localized entangled dynamics of assemblages in both approaches of Policy Mobilities and RTPS (Harrison et al. 2017).

3.2 Case Study Research

The aim of this thesis is to examine the usefulness and contribution PM, KD and RTPS research may offer for explicating the Geography of Sustainability Transition. As outlined before, the assemblage approach remarks a promising way of thinking to grasp the multi-facet entanglements and dynamics of institutional change and spatialities of sustainability transitions. As assemblages can best be approached by analyzing practices pursued by central actors in a specific period of time, a case study approach was considered as the most promising research design.

Case studies enable examinations that answer the question of how and why specific dynamics arise and work (Eisenhardt and Graebner 2007). The focus on individual cases is not to be understood as a disadvantage, but enables insights into higher-level systems, especially if specific cases and the structures in which they are embedded in cannot be clearly delineated (Gerring 2004; Yin 2014). This applies to both assemblage thinking as well as the evolutionary approach of RTPS, in which complex cross-system institutional dynamics are analyzed. Hence, Yin (2009: 18) describes case study research as ‘an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident’. The added value of case studies lies in the understanding of the individual phenomenon and the approaches to problem solving as well as in the possibility of further developing or detailing theories (Eisenhardt and Graebner 2007; Merriam 2009; Baxter 2010).

Correspondingly, case study research appropriately contributes to the research question in this thesis, as the used theories consider the researched phenomena as socially constructed (Yin 1994; Stake, 1995). Case study research thus encompasses more than just the collection of data, but rather provides an attitude of the researcher who must reflect that the research subject is constituted by permanent interpretation through opinions, narratives, practices, and indications (Mills 2014). These interpretations depend heavily on the cultural and historical context of the case, so that, on the one hand, the current, socio-temporal fixed status of the research subject must be considered. On the other hand, case study research enables examining short-term and long-term developments (Baxter and Jack 2008; Crabtree and Miller 1999). Therefore, recognition of the social constructivist character of case studies conditions the processes of inquiry, the methods applied, data collection, analysis, and interpretation (Creswell 2009; Mills 2014).

Since the aim of case studies is to provide an understanding of the processes occurring as precise as possible, qualitative survey methods are usually applied (Harrison et al. 2017).

Although quantitative analyzes also exist, qualitative research methods predominate to explicitly capture the sensitive specifics and sometimes also hidden information of the cases (Baxter and Jack 2008; Baxter 2010).

Yin (2003) systematizes case studies based on their specificities with respect to time and space (see Figure 3.1). A temporal typification describes that the time dimension plays a decisive role in data collection. These longitudinal case studies are therefore particularly suitable for researching context-specific changes over a certain period (Baxter 2010). Spatial typification enables the examination of socially and spatially embedded entities (e.g. organizations, sectors, institutional systems). Spatially different cases are also suited for comparative analyzes. By highlighting similarities and differences, these cases can help to make generalizable statements or at least identify indications of them (Yin 2003). Individual cases, on the other hand, are mostly used for in-depth research of rare, decisive, representative, or particularly informative cases. Within these intra-case studies different categories and their longitudinal developments can be examined (Yin 2003).

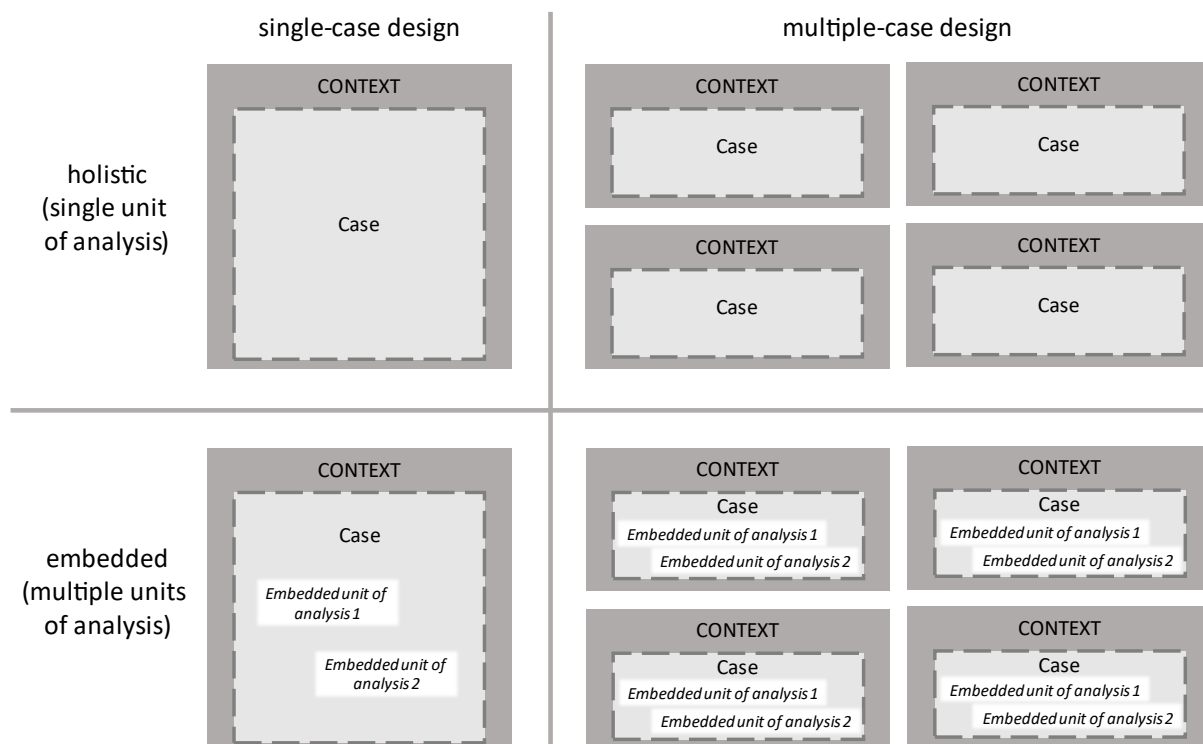


Figure 3.1: Basic types of Case Studies designs (based on Yin 2003: 46.)

Case study research, however, has often been criticized for its low informative value (Yin 2003; Flyvbjerg 2006). The main argument of this criticism is the lack of generalizability of the results. Terms of quantitative research and statistics are also transferred to case study research, so that $n = 1$ or 2 is used for the small number of cases. However, this transfer of quantitative terminology is inappropriate as the focus of research is different. Case studies research aims at examining the context and provides in-depth insights into special forms of entities that are only perceived as outliers in a quantitative analysis (Baxter 2010). The application of quantitative methods is therefore insufficient, especially for the consideration of socio-constructivist phenomena since it allows only limited insights in the social and spatial contexts of the investigated cases. In addition, specific units embedded in the cases can be compared with one another, so that a reduction of the cases as homogeneous entities would be too short-sighted (see Figure 3.1, Yin 2003; Baxter 2010). Hence, the special characteristics of a phenomenon legitimize the application of case study research (Merriam 2009).

It follows that the usefulness of case studies does not depend on the number of cases, but on the goal of the research. Case studies can therefore be valuable if they represent particularly unusual, interesting, or innovative examples. Furthermore, Yin (2003) distinguishes explorative and explanatory case study research. The latter is used to explain complex relationships that cannot be grasped using quantitative methods. Exploratory case studies, on the other hand, focus on phenomena for which the results can be unexpected and unclear (Yin 2014; Flyvbjerg 2011). Since real-life case studies contain aspects of both types, Siggelkow (2007) underlines the benefits of testing hypotheses from existing theories and how these may have to be adapted to current developments. Case study research can thus raise new research questions or refine or even contest existing concepts. In addition, case studies can serve to combine theoretical concepts with practical examples. They illustrate to what extent certain theories are suitable for the understanding of real phenomena. Correspondingly, the various research objectives have a

large influence on which cases should be selected and provide an answer to the criticisms set out above.

Above all, the criticism of the non-generalizability of the results resonates particularly in the use of case studies for theory building (Baxter 2010). However, through a well-founded selection of the cases, special characteristics are researched that would not have been recognized in other cases (Siggelkow 2007). Therefore, while on the one hand generalizable statements can be confirmed by high case numbers, case studies transfer and check these statements in a specific context (Baxter 2010). Transferability of case study results thus become more important than generalizability. However, this requires the right degree of abstraction of the results, which must not be too specific, but also not too superficial, to be found again in other contexts (Yin 2003; Gerring 2004; Baxter 2010).

Against this background, the following sections explain why longitudinal single case studies were investigated in the empirical papers in this thesis.

3.3 Case Selection

The title of this thesis already underlines the central importance of practical case studies for investigating the GeoST. It asks how sustainability may be integrated into regional economic development strategies and what role actors, dynamics and development paths play in this. The case study used in Paper 2 focuses on the actors and dynamics that contributed to the creation of a sustainable economic development strategy. The case study is characterized by two special features justifying the applied single case analysis. First, the case study illustrates the conceptual detailing of the knowledge component in Policy Mobilities: by accompanying consultants for many years, it was possible to draw a differentiated picture of the practices and value patterns of this group of actors in a specific cooperation project for sustainable policies. Second, knowledge dynamics in a PM process were examined in depth for the first time through this case study. This was achieved not only through analyzing easily accessible, codified

knowledge, but by integrating tacit knowledge, which was made possible through a close and trustful relationship with the key actors involved (Gössling 2004; Torre 2008). In so doing, knowledge dynamics and their impact on the process of policy invention was revealed.

In addition to actors and their practices, the third paper integrates the time dimension of a specific project. Although no long-term sustainable transition of a region could be investigated, the case exposed short-term mechanisms of institutional change at the organizational level (Strambach and Pflitsch 2020). The case study is also suitable as a single case, as it deals with the world's first business development organization that seeks to develop its everyday work on the institutional framework of the economy for the common good (ECG). It represents an initial step towards understanding the potentials and obstacles of alternative economic models for initiating more sustainable practices in the public sector.

3.4 Data Collection and Analysis

To capture the complex relationships and dynamics in the investigated case studies, ethnographic methods were used that documented the specific projects in their chronological development. The data was collected employing qualitative methods of document analysis, conducting semi-structured interviews and participatory observation. In addition, the author of this thesis was employed by the consulting firm that was involved in both analyzed case studies during the period of data collection. On the one hand, this had an impact on the interpretation of the data. As the author of the thesis achieved to 'see like a consultant' over time, data could be put in context to other projects and the knowledge base of the organization (Prince 2012a: 197, adapting Scott 1998). Hence, the interpretation of the data was significantly refined through personal experience. On the other hand, the appropriate distance to the research subject had to be maintained to avoid distorting the results and assure objective investigation. The advantages and disadvantages as well as the consequences for this kind of Action Research are discussed in section 3.4.4.

Since the examined projects, which defined the temporal and spatial framework of the case studies, were each implemented over several months, a sort of innovation biography was created for paper 2 (Butzin and Widmaier 2016). Innovation Biographies focus on the development of specific innovations over time and space. In addition to the composition of the actor network, the spatial component also includes their interconnectivity and the resulting interpersonal relationalities. Since the number of cooperating actors in paper 2 remained constant over the entire course of the project, the research was focused on the interplay of practices and knowledge dynamics. Especially through participatory observation, actor- and knowledge-related changes over time could be investigated. The development of social and institutional proximity created trust, which in turn led to an increased exchange of valuable and sensitive (tacit) knowledge in the later project. This enabled the connection between Knowledge Dynamics and a specific PM process (policy invention) to be examined in depth. Therefore, tracing the innovation biography facilitates the reconstruction of spatial and temporal dynamics driven by the actors involved (Butzin and Widmaier 2016).

In addition, Boschma's (2005) contribution on the importance of different proximities among cooperating actors was used to structure these diverse interrelations indicating supportive or impeding configurations of the innovative network. The approach claims that mutual understanding and eased communication are supported when the actors involved share the same or at least similar cognitive (shared knowledge base), social (shared personality characteristics), institutional (shared rules, laws, norms, values, routines) and organizational (shared organizational logics) framings (Strambach and Klement 2012; Mattes 2012). Furthermore, spatial proximity during cooperative projects enables decisive trust-building and is essential for sharing valuable informal knowledge. Proximities therefore systemize interrelations of actors in order to understand the specific implications for the cooperation performance in innovation processes (Balland 2012; Balland et al. 2015; Rutten 2017). As innovation networks may change over time, proximities between collaborating actors might

change as well. This necessitates awareness to varying network configurations as these may include other scales, new actors or altered institutional frames (Strambach and Klement 2012). In this sense, the proximity approach is used to structure and combine the interdependencies of interpersonal relations, practices and knowledge dynamics during the case study in paper 2.

Against this background, the examined policy invention was understood as an assemblage strongly influenced by micro-level dynamics. Accordingly, there are also limitations in the methodology, which primarily relate to the definition of what does belong to the invention process and what does not as well as when it starts and ends. The fuzzy notion of assemblage requires permanent awareness of which elements should be integrated during the data collection and how should they be positioned in relation to the other elements involved. In addition, no precise sequence of specific methods for examining assemblages is specified to date. Rather, experimental and exploratory approaches can be applied in order to grasp the complex interrelationships. However, both case studies have a roughly identical sequence of methods used. At the beginning an analysis of existing documents was carried out to get an overview of existing concepts and ideas, especially for sustainable projects. Through working in the consultancy, internal documents were accessible which detailed the picture of the starting point of the policy invention process. Based on this, the method of participatory observation was applied in every meeting of the actors involved during the project. The numerous notes and personal impressions were supplemented by multiple informal discussions and short interviews. Furthermore, the close exchange and trust among the central actors enabled the perception of very personal attitudes and value structures that shaped the occurring practices. The good interpersonal relationships additionally facilitated an open exchange about hindering factors that were decisive for the failure of the innovation process pictured in paper 2. As a third step, semi-structured interviews were conducted with all actors involved to gain insights into the individual knowledge bases, networks, and the institutional context of the respective project.

In sum, the mixed-methods approach was implemented to obtain a differentiated and objective picture of the examined case studies by combining available data. The methodical fundamentals of document analysis, semi-structured interviews and participant observation are described hereafter. At the end of this part, consequences of working in one of the key consultancies in the analyzed cases on the applied methodology are discussed by referencing to the action research debate.

3.4.1 Document Analysis

The document analysis included internal organization concepts and idea sketches for sustainable economic development as well as documents from other consultancies on this topic. These were supplemented by regulatory documents at the state, federal and EU level. Table 3.1 provides an overview of the main contents and purpose of the analysis.

Publisher	Documents	Aim of analysis
Intra-organizational documents of GEFAK	<ul style="list-style-type: none"> Existing concepts and idea sketches from previous workshops on sustainable business development Project reports on sustainable economy Survey results about business development agencies and their experiences with sustainable economy Policy documents and reports produced during the innovation process 	Examining the development and the intra-organizational knowledge base of GEFAK to understand the origins of engaging in sustainable economic development strategies
Other Consultancies	<ul style="list-style-type: none"> Regional concepts and studies on sustainable economic development Presentations on disruptive and sustainable technologies and future challenges Sustainable economic concepts (Wirtschaftsförderung 4.0) Flyers and information materials from other consultancies 	Overview of the existing concepts and actors who deal with the topic of sustainable economy in cooperation with the public sector
Public sector (federal state and national government and EU)	<ul style="list-style-type: none"> Sustainability strategies of the state of Hesse, the federal government, and the EU Regular newsletters from the federal government and institutes about sustainability 	Understanding the institutional framework in which the projects are implemented and positioned (institutional system)

Table 3.1: Overview of the objectives and important content of the document analysis

3.4.2 *Qualitative Interviews*

The most valuable survey method in addition to participant observation was conducting semi-structured interviews. In both case studies, the central actors who were responsible for realizing the projects were interviewed. Accordingly, there was a clearly defined target group for the survey. In total, five interviews (between 60 and 90 minutes long) were conducted for Paper 2 and three interviews (between 30 and 60 minutes long) for Paper 3.

The interviews were used to triangulate the subjective impressions from the participant observation with the opinions of the central actors and to find out the individual cognitive and institutional backgrounds. The years of collaboration with some interview partners and the ongoing joint project work resulted in important trust, which enabled somewhat more sensitive questions about institutional change and interpersonal difficulties in project implementation. Furthermore, useful insights into the organizational and institutional basis of the actors could be obtained to properly interpret and classify their practices.

In paper 3 there are two embedded sub-units which, on the one hand, include the view of the process-accompanying consultancy and, on the other hand, the business development agency as the client. The interviews of the consultants involved aimed to reveal supporting and detaining factors in sustainability projects by comparing them with experiences from other projects. In addition, it was possible to contextualize the project beyond the region in the business development system and to discuss potential effects on other regions or institutional scales. The interview with the central actor of the business development organization primarily focused on the institutional and practical changes in everyday work. Based on these short-term changes, possibilities and obstacles in embedding sustainability in economic development strategies could be discussed.

All interviews were audio recorded. In the case study of Paper 2, the interviews were transcribed via MaxQDA and evaluated after the qualitative content analysis (Schreier 2012; Mayring 2014). Through systematizing and coding of the transcripts subject-specific analyzes

can be conducted using the qualitative content analysis. The decisive advantage is that the amount of available information was assigned to specific analytical categories and thus reduced. These categories are either inductive or deductive, so that a theoretically sound systematization is realized, and further aspects can be flexibly added. Therefore, this step-by-step analysis enables a systematic analysis that includes all categories relevant to the research question (Kuckartz 2012; Schreier 2012; Mayring 2014).

3.4.3 Participatory Observations

As an employee at the consultancy GEFAK, participating observation turned out to be a central method of data collection. In addition to participating in regular meetings of the cooperating actors in Paper 2, the informal exchange with the GEFAK colleagues facilitates drawing a differentiated picture of the knowledge, motivation, and strategic approaches to integrate sustainability into business development strategies. The flat hierarchies in GEFAK also contributed to the fact that the relationship between the author of this thesis and colleagues goes beyond mere collaboration and rather be understood as friendship. This aspect is particularly important when it comes to the trusting exchange of sensitive information, as already stated before. Secondly, the consultancy's long relationships with cooperation partners and business development agencies enabled utilization of these close contacts for research purposes. The debate about the advantages and limitations of this action research and its benefits for objective research are currently being debated in several science strands. Nevertheless, and with regards to suggestions of some PM scholars, an empirical study could be realized that scrutinizes the work of consultants and policy knowledge dynamics in depth (McCann 2008; Prince 2012a; Bok and Coe 2017). The opportunities and risks of this Action Research approach are presented in the next section.

3.4.4 Action Research

Action Research was constituted in the 1940s by Kurt Lewin and aimed to transform the role of scientists from an external observer into a participant (Lewin 1946; Bradbury et al. 2008). The aim was to scientifically contribute to solving specific problems and obstacles in real life (Coghlan 2019). The approach is thus in line with the request to ‘follow the policy’ and the consultant to research their specific role in PM (and in RTPS) (McCann and Ward 2012a: 42; Ball 2016). Nevertheless, this methodology requires reflections which are detailed below.

The benefits and limitations of action research have been discussed in numerous scientific strands for decades for example in services, education, social geography, and sustainability transitions (e.g. Elg et al. 2020; Stringer 2008; Pain 2004; Wittmayer et al. 2014). The core of the debate is always to what extent practical collaboration, whether as an external researcher or as an employee of a company, contributes to generalizable and scientifically sound statements about a specific problem (Coghlan 2019). A basic argument on the one hand is that academic research has lost its practical relevance in recent decades (Van De Ven and Johnson 2006). The reason for this is seen in the increased focus on the number of publications and less on their actual contribution to explaining or solving a problem (Alvesson et al. 2017). On the other hand, many projects in which action research was applied show an excessive bias on the practical aspects that neglected theoretical and conceptual foundations (Herr and Anderson 2005).

Therefore, the challenge is to maintain a balance between the perception of practical elements and their positioning in theoretical concepts during research. How this can be implemented has not been conclusively clarified. Nevertheless, a cyclical approach has been developed over time, which includes the steps planning, action and observing as well as reflection and adjusting in the implementation of Action Research (Coghlan 2019). By repeating these steps, the research approach should be adequately adapted to the status of a project. Therefore, the approach is useful for projects that stretch over several months or years. In addition to this process-oriented aspect of Action Research, there are additional challenges

about the research focus. Elg et al. (2020) have developed a systematization on this topic that describes the possible research foci of Action Research. In this connection there are two dimensions: research system vs. practice system and problem vs. solution (see Figure 3.2). In this sense, Action Research always involves four elements that are explicitly or implicitly part of the examination. Therefore, these four elements should be considered in all case studies to position one's own research approach (Elg et al. 2020).

First, from a practical point of view, a specific problem needs to be identified that requires research. Accordingly, this aspect plays a central role in the case studies of this thesis. In Paper 2, detaining and supporting factors in the cooperation of consultancies aiming to develop a specific sustainable policy are shown. Paper 3 investigates mechanisms that enable organizations to adapt their values and practices while taking sustainability aspects into account. These practical problems are in turn useful for explaining regional development paths towards sustainability. Later in this thesis it will also be shown which policy recommendations can be derived from the main findings on these topics.

Second, action research can help refine or supplement existing theories or test their practical relevance. The merging of the theories of PM, KD and RTPS creates a completely new constellation of theoretical considerations. However, the case studies used in this thesis combine these theories, and their multi-facet specificities become tangible through the author's practical involvement. By integrating the existing theories and practical experience, the goal of theory enhancement was achieved, especially in Paper 2. In addition, the theories provide a framework for how research needs to be carried out.

Accordingly, the different methods outlined in this chapter were used. The mixed-method approach thus contributes to the third action research element, which addresses the identification and design of an intervention concept. In so doing, Action research can also contribute to conceptual developments (Eden and Ackermann 2018). In this thesis, however, this point is of little importance.

As a fourth element, Action Research may focus on interventions. This means that solutions should be tested and evaluated through specific practices. This allows context-specific statements about the effect of specific practices in order to expand or adapt them if necessary.

Against this background, the case studies in this thesis are problem-oriented and focus on the relationship between problem and theorization. The aim from a methodological point of view is therefore twofold: to enrich existing theories (Synergies of PM and KD) and to conduct practical research to examine theoretical fundamentals (PM, KD and RTPS)

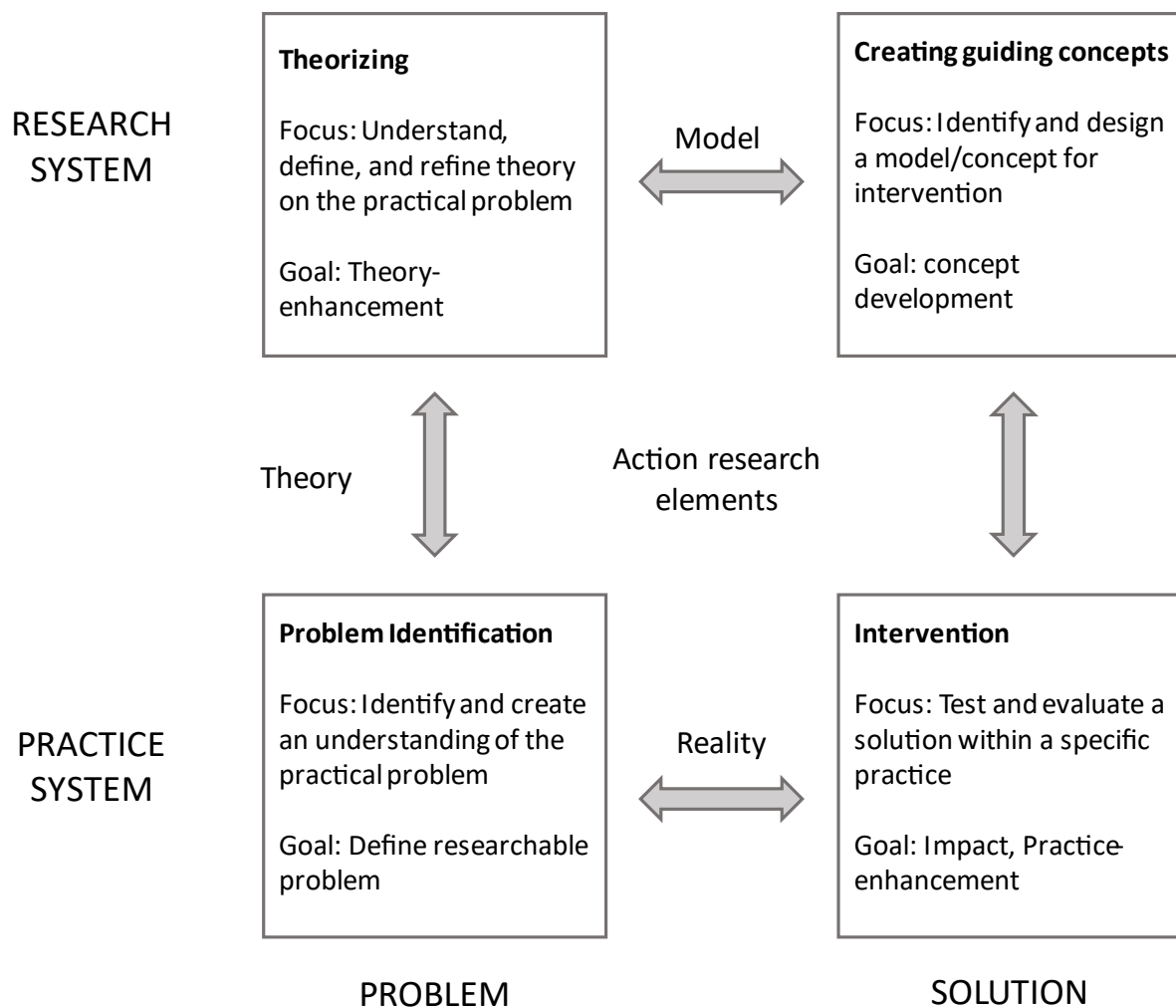


Figure 3.2: Analytical framework: components and relations of Action Research (based on Elg et al. 2020: 89)

Indeed, Action Research in the geographical-scientific context requires further explication about the perception of space. Nonetheless, building trust and understanding the interwoven relationships in topics such as sustainable regional development or policy making require practical examples and close contact with the key actors in these projects. Correspondingly, the case studies used in Papers 2 and 3 indicate that a structured application of Action Research holds great potentials to contribute to multiple issues combined in the GeoST.

IV PAPERS

Three subsequent research questions are addressed in this thesis. First, synergies between the theoretical approaches of Policy Mobilities and Knowledge Dynamics are shown. Second, building on the theoretical explanations from question one, the impact of Knowledge Dynamics on the specific processes in Policy Mobilities are examined in order to gain deeper insights into contemporary policymaking. Third, the thesis contributes to understand the role of policies for intra- and inter-organizational institutional changes in regional transition paths to sustainability.

In the theoretical part of this work, schemes were used to give an overview of the relationships between the three theories applied in this thesis. As the papers contribute to different topics they may be roughly positioned within these schemes. Surely, the simplifying figures do not reflect all dynamics and understandings of central terms in detail, so that the positioning of the papers is based on their main contribution (see Figure 4.1 and 4.2).

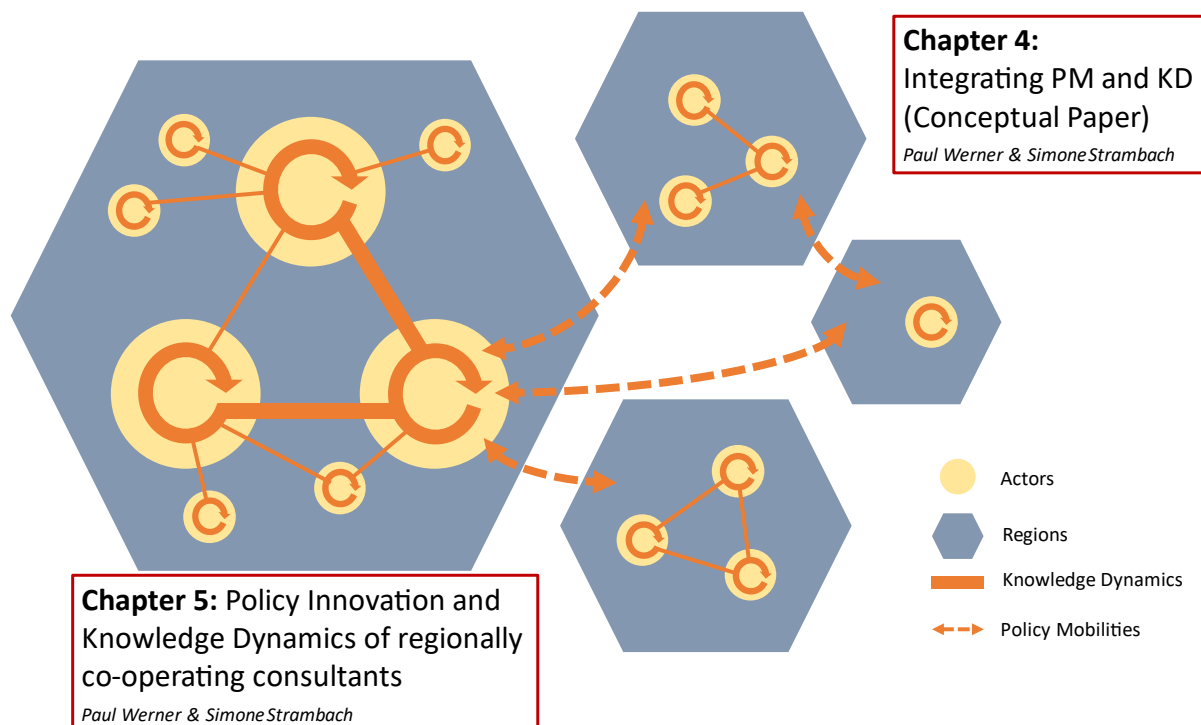


Figure 4.1: Positioning of the papers in chapters 4 and 5 in the joint theoretical framework of PM and KD

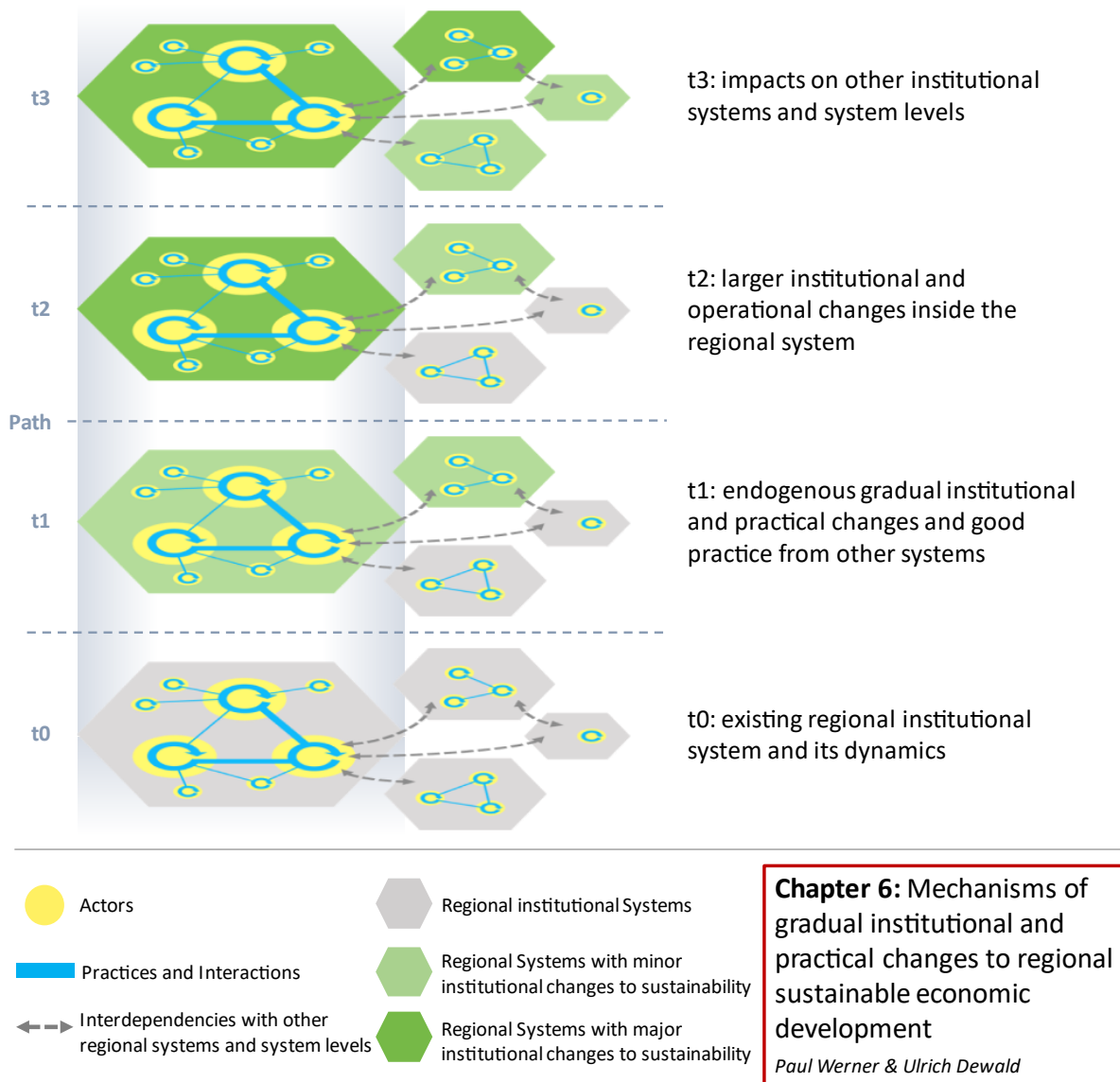


Figure 4.2: Positioning of the paper in Chapter 6 in the theoretical framework of RTPS

The first paper in chapter four entitled '*Policy mobilities, territorial knowledge dynamics and the role of KIBS: Exploring conceptual synergies of formerly discrete approaches*' has been published in 'Geoforum' in 2018. It addresses the conceptual gap in understanding knowledge in policy mobilities. By integrating the theoretical approaches of Knowledge Dynamics, synergies are elaborated that are useful both for the theorization of policy knowledge and for its empirical examination. In addition, the paper argues that the findings on Knowledge Intensive Business Services can also be used to detail the role of consultants in the policy making arena. Policy consultants are thus perceived as a subgroup of KIBS. From a conceptual

point of view, the paper refines the notion of policy knowledge significantly and additionally lays the basis for its empirical research through a recommended research agenda.

The second paper in chapter five named ‘Micro-Level Knowledge Dynamics in Policy Mobilities: Inventing a Policy for Sustainable Economic Development in Hesse, Germany’ is currently under review in the journal ‘Geografiska Annaler’. It takes up the theoretical arguments from the first article and transfers them to empirical research on knowledge dynamics in the process of policy invention. It thereby illustrates that the analysis of micro-level policy knowledge dynamics generates profound insights into supporting and detaining factors in PM processes. A case study in which four consultancies in Hesse attempted to invent a policy for sustainable economic development was used to provide empirical substantiation. In particular, the cognitive proximity of the actors involved decisively contributed to the project’s failure. Empirically, the paper makes micro-level knowledge dynamics within the focused assemblage tangible by analyzing central practices and interpersonal proximities.

The third paper in chapter six, ‘Regionale Transitionspfade zur Nachhaltigkeit: die Gemeinwohlökonomie als Impuls für institutionelle Veränderungen im deutschen Wirtschaftsförderungssystem’, is currently under review in the journal ‘Zeitschrift für Wirtschaftsgeographie’. Using the example of a report on the common good in a German business development organization, it discusses how alternative economic models (understood as policies) can initiate institutional change. It has been shown empirically that there were institutional and practical changes inside the organization that were increasingly geared towards sustainability intra- and inter-organizationally. Regarding the underlying theory, the paper draws on approaches from regional transition paths to sustainability (RTPS), in which socio-temporal dynamics of gradual and long-term institutional changes are used to explain regionally specific development paths.

The papers thus contribute to the explanation of different topics, which are, however, connected by several aspects (e.g. institutional change, practices as access points to empirical

analysis, central role of knowledge). By explaining regional dynamics and emerging sustainable practices and institutions, the papers help to understand the uneven and regionally specific developments of the Geographies of Sustainability Transitions.

4 Policy Mobilities, Territorial Knowledge Dynamics and the Role of KIBS:

Exploring Conceptual Synergies of Formerly Discrete Approaches

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published in: Geoforum, volume 89, pages: 19-28

Abstract:

Although contemporary policy making is substantially affected by consultants, little is known about the interconnection of their role inside policy making networks and their key product – knowledge. This paper matches the approaches on Policy Mobilities (PM) and Territorial Knowledge Dynamics (TKD) to fill this theoretical gap. By exploring the synergies of both concepts, a research agenda is suggested that enables to investigate the multi-faceted entanglements of knowledge and policy making dynamics as well as what stake consultants have in this complex assemblage. Accordingly, this paper claims appreciation of ‘variegated consultocracies’ rather than global homogeneity of consultants’ engagement in policy making processes by explicating better integration of ‘scale, ‘time’, and actors’ embeddedness into PM. The paper thus primarily aims to provide a solid theoretical and methodological basis for exploring the complex dynamics consultants take part in, and how they in turn impact policy making processes.

Keywords: Policy mobilities; Knowledge dynamics; KIBS; Assemblage; Variegated consultocracies; Embeddedness

4.1. Introduction

Since the approach of Policy Mobilities challenged the rather unsatisfactory outcomes of Policy Transfer literature, a huge amount of new and revealing insights on contemporary policy making has been gained. Especially the accelerating global dynamics with which policies are mobilized, implemented, and changed were object to numerous articles (e.g. MCCANN & WARD 2012b; TEMENOS & MCCANN 2012; COOK & WARD 2012). This corresponds with what PECK (2011) required by emphasizing that it is not rational decision making that dominate modern politics, but a multi-facet and contested system characterized by power relations and personal interest (MCCANN 2013). With the development of ‘Good Governance’ (PECK 2011: 777) in which politicians work closely with private sector experts, a new group of players stepped in the political arena occupying central positions of modern policy making (MCCANN 2008; PRINCE 2010a). In spite of their vital role in today's political systems and the Policy Mobilities approach, relatively little is known about the way that these experts operate in detail, which strategies they pursue, or how they bias politics indirectly and directly. There are some decent exceptions dealing with these actors (e.g. PRINCE 2014a, 2014b; MCCANN & WARD 2010). However, an in-depth examination of experts’ influence on policy mobilities lacks to date and remains a black box in most studies.

In this paper, we argue that it is necessary to get a deep understanding of policy making and knowledge related dynamics originating from experts’ work on multiple scales and their interconnections to other involved policy actors. Besides existing empirical lacks we want to highlight and respond to a missing adequate theoretical framing in the Policy Mobilities approach. Up to now, there is no frame that enables to grasp the core product of experts – policy knowledge. Hence, we suggest filling this theoretical gap by employing the territorial knowledge dynamics (TKD) approach (Crevoisier & Jeannerat 2009; Halkier et al. 2012; Manniche 2012; Strambach & Halkier 2013; James et al. 2016). Although this approach developed from geographical innovation research, numerous synergies between PM and TKD

can be assumed as both theories focus on the success (and failure) of products in contested multi-scalar markets. The territorial knowledge dynamics approach allows investigation from the individual to the global level and enables, by connecting processes of knowledge change (learning) and policy mutation, examinations of policies over time. In other words, the present notion of policy mutation is extended by a temporal dimension that has been absent to date. The paper, therefore, examines possible synergies of these formerly discrete approaches to overcome existing theoretical and empirical lacks. Building up on this, we derive a proposal of integrating knowledge dynamics in the Policy Mobilities approach to better frame future empiricism in this field.

With this in mind, we address the problem in four sections. Section two specifies the approach of PM. It is argued that although investigations on the multi-scalar processes of policy making are frequently advocated, only little is known about policy knowledge, its underlying micro-dynamics and what specific role consultants play in this field. Based on this, section three shows promising approaches of contemporary innovation and KIBS (Knowledge Intensive Business Services) research, that may fill the theoretical gaps revealed before. In section four, a mutual theoretical enrichment of TKD and PM will be suggested embracing the epistemological synergies of conceptual similarities and presenting substantial complements of the two approaches. Establishing this theoretical basis allows further research to shed more light on consultants' work and particularly on their employment of knowledge in the multi-facet field of Policy Mobilities.

4.2. Essentials of Policy Mobilities

In the last decades, multiple debates on political science theories on Policy Transfer revealed that to some extent this orthodox concept increasingly suffers from deficient explanatory power (DOLOWITZ & MARSH 1996). Exemplarily, EVANS & DAVIES (1999) tried to introduce a more holistic view by combining agency aspects, on the one hand, and the wider structures those

agents and their actions are embedded in, on the other hand. It turned out that this ‘multi-level approach’ was indeed beneficial to firmly expand knowledge about Policy Transfer. Even though the theory’s structuralistic character did still not tackle important aspects of interconnections between both agency and structure (MARSH & SHARMAN 2009: 275), the involvement of new elements in Policy Transfer ushered remarkable theoretic progress leading to the contemporary social constructivist Policy Mobilities approach (MCCANN & WARD 2012b). Although PM assumed progressively shape, it is rather a dynamically evolving than a static or final framework for analysis embracing all aspects topically connected to the notions of policy *assemblages*, *mobilities* and *mutations* that dominate today’s geographic literature in this field (TEMENOS & MCCANN 2013; MCCANN 2011a; 2011b; 2013). Given the fact that processes of policy movement are highly intricate, Policy Mobilities offers a nearly all-embracing theorization of grasping this complexity. Accordingly, MCCANN (2013:6) defines Policy Mobilities as ‘the socio-spatially produced and power-laden inter-scalar process of circulating, mediating, (re)molding, and operationalizing policies, policy models and policy knowledge.’ In other words, a differentiated model has been created, focusing on how policies get mobilized, mutate and are realized in places and spaces by the interplay of global flows and local conditions (SWANSON 2013).

4.2.1 Knowledge and Policy Mobilities

Policy knowledge – i.e. substantial knowledge about how to solve a specific local or regional problem through appropriate strategies/activities – in PM is considered only one aspect in a wider field that is constitutive for a resulting policy. In contrast, reputation ascribed to specific actors or approved policy contents from elsewhere is perceived far more decisive for creating policies following an established hegemonic ‘truth’ (MCCANN 2008). Yet, multiple studies see that the various interconnections between the two spheres – knowledge and reputation – lead to policies’ successful mobilization, mutation and contextualization. The term ‘*assemblage*’

appreciates these interconnections and therefore labels a constructivist way of thinking the composition of ‘things’ in general. It thus “encourage[s] both an attention to the composite and relational character of policies [...] and also to the various social practices that gather, or draw together diverse elements of the world into relatively stable and coherent ‘things’” (ANDERSON & MCFARLANE 2011: 124; ANDERSON et al. 2012). Awareness of those compositions’ unexpectedness and non-linearity is also integrated into the serviceable definition of ‘assemblage’ formulated by ALLEN & COCHRANE (2007: 1171), as they accentuate the interconnections, dependencies and inducements of the several elements involved in developing a certain way of governance; also transferrable to the social creation of policies or other entities. They state that “increasingly, it would seem that there is little to be gained about [urban or] regional governance as a territorial arrangement when a number of the political elements assembled [...] are ‘parts’ of elsewhere, representatives of professional authority, expertise, skills and interests drawn together to move forward varied agendas and programmes [...] There is [...] an *interplay* of forces where a range of actors mobilize, enroll, translate, channel, broker and bridge in ways that make different kinds of government possible” (ibid.).

Picking up these notions and following PRINCE (2012a: 198), policies can be considered ‘as assemblages of texts, bodies and the networks they are creating’. In fact, he also highlights the gathering of different elements that lead to the result of a certain policy being more than just a bunch of texts on how to handle a specific problem. Insofar, the interplay between behavioral implications of involved actors which are in turn shaped by the circumstances they are embedded in, as well as their social linkages set the epistemological frame for investigating contemporary policy making processes.

However, although knowledge is considered an important factor in policy making processes, it is rather undertheorized in the PM approach. Recent studies primarily focus on political competition and struggle as origins for policy mobilities. As one example, GOTHAM (2014) highlighted the importance of competition and emulation of cities or regions as

‘mechanisms’ for policy mutation activities. The study indeed clarifies the inherently power-laden processes that emerged during the functional shift of the ‘enterprise zone policy model’ – developed for economic development – to an efficient disaster-devastated area policy. Yet, its in-depth analysis concentrates on socio-spatial processes that were central to this transition, without appreciation of learning processes and experience gathering during the policy’s local implementations. Frequently knowledge is regarded as taken-for-granted and pervasive through the existence of globally acting consultants (COOK & WARD 2012). In fact, this undifferentiated perception stands in sharp contrast to contemporary literature on geographical innovation research that conceptualize knowledge as the ‘socially constructed outcome of interactive learning processes, communication and mutual understanding among the actors’ (STRAMBACH 2012: 1846). Drawing on this, the central position of consultants in PM as knowledge mediators in policy making networks necessitates theoretical and empirical endorsement to fill this scientific gap.

4.2.2 Space and Policy Mobilities

In Policy Mobilities assemblage thinking is also applied to the understanding of space, place and scale. Frequently, specific arenas are appreciated beneficial for examining the various and globally stretched dynamics and processes of policy making. Spaces characterized and produced by conflating processes of multiple scales are in focus of most empiricism in PM appreciating their assembled constitution. In these regards, cities are esteemed compositions of the ‘previously unrelated, a constellation of processes rather than a thing, [...] open and [...] internally multiple’ (MASSEY 1991; 2005: 141) combined with HARVEY’s (1982; 1985) ideas about the tensional but productive relatedness of capital’s fixity and mobility. In fact, this consideration implicates the mediating work of actors like politicians and consultants offering policy packages as moveable solution to local problems and therefore creating relational

proximity between cities as these are consequently impacted by the same political strategies (PECK 2002; PECK & THEODORE 2010a; Robinson 2011a).

In these regards, another important aspect of policy mobility is the production of so called '*globalizing micro-spaces*' originally inaugurated by LARNER & LE HERON (2002: 765). Evoked by policy agents yielding their specific expertise, skills and interests, these micro-spaces considerably affect the outcome of policy making processes. The term 'globalizing' is appropriate as the co-presence of actors and face-to-face learning assembles ideas and knowledge from elsewhere in a specific location (MCCANN 2011a: 123). Here, agendas and programs are discussed, renegotiated and changed through accomplishing new information about experiences, interests and local conditions from multiple places (ALLEN & COCHRANE 2007: 1171). Sometimes this geographical co-location and co-presence of different authorities are termed as 'temporary clusters' of policy knowledge (MASKELL et al. 2004). As one 'globalizing micro-space' that has aroused particular interest in scientific literature, conferences can be employed as a splendid example to illustrate the production of such spaces. First, it involves the character of a face-to-face connection between different representatives of authority and their expertise in a specific topic. This generates a 'local buzz' of ideas and knowledge about policies, activates learning processes and permits the evaluation of policy models as well as their transferability to other locations (HAMEDINGER 2014). Thus, bringing in new information and debating policies' transfers from one place to another strongly impairs the conditions under which policies get mobilized and potentially mutate (COOK & WARD 2012: 141f.). Second, by assembling elements of near and far, conferences – as well as other globalizing micro-spaces – connect different scales and must therefore be recognized as nodes in globally stretched policy networks. Nevertheless, much more research is demanded on whether and what impacts such 'globalizing micro-spaces' have on the performances of different actors involved in policy making networks.

Both cities and globalizing micro-spaces clarify the importance of multi-scalarity in the PM approach. In line with this, one of the first studies on the interconnections of knowledge dynamics on multiple scales and its importance for policy mobilities is MCCANN's (2008) exploration of how global expertise is crucial for the mobilization of Vancouver's four pillar drug policy. He stresses the centrality of policy knowledge – embodied in traveling expert and the work of mediating institutions or inherent to the policy model itself – and learning processes during the implementation of policies by appreciating the connection between global circuits of policy knowledge and local conditions. Clearly supporting MCCANN's approach of grasping the multi-facet dynamics between the local and the global, we suggest openness to integrate further possible scales aside from local and global that might be produced through the practices and circulation of knowledge among policy actors. Following ALLEN & COCHRANE (2007: 1171) scale is relationally produced by processes and practices of the involved actors. Predefined arrangements of institutional or administrative entities (like governmental agencies) are of course recognized. However, their 'power plays take place within more fluid, relational institutional settings than any top-down, territorial arrangement can fully convey' (ibid.).

Nevertheless, to profitably integrate knowledge dynamics in the PM approach – and to structure upcoming empiricism in the first place – it is for the remainder of this paper important to differentiate and define the termini of *micro* and *macro level* as spatial categories. Drawing on firm-centered innovation research literature, micro dynamics relate to the multiple interconnections and processes occurring between actors inside a specific organization or even inside an individual (LEONARDI & BARLEY 2010: 40). Consequently, all dynamics between agents of different organizations or certain groups are termed as macro. The dichotomy of the rather confining global-local interconnections often applied in PM is therefore neglected. Instead, openness to new, relationally defined scales that need to be considered when analyzing the various practices of agents involved in assembling policies is emphasized.

A greater awareness of differentiated multi-scalarity leads over to '*mobilization*' as another crucial aspect of policy mobility accentuated in the respective literature. In this regard, recognition of mobilization processes from micro- to macro-level is prerequisite for adequate examinations as the dominant market-oriented structures determine policy making processes (BRENNER et al. 2010: 185). For example, by bundling policies to comprehensive packages and market them worldwide as 'best practice models', circuits of policy knowledge have heavily accelerated in the past years (PRINCE 2012a: 191f.; PECK & THEODORE 2010a). Of course, policies are not entities existing discretely in space of flows, rather they must be applied "to qualify as best practice – a fact implicitly recognized in the tendency to associate particular policy models with places they are perceived as originated in, such as the 'Barcelona model' for urban regeneration" (MCCANN & WARD 2010; PRINCE 2012a: 192). Specific authorities involved in policy making processes (e.g. mayors) try to promote or 'talk up' policy models of their own municipality as 'best practice', aiming for higher reputation and positive effects for the city's marketing. The notion of 'policy boosterism' labels this sort of policy mobilization (MCCANN 2013).

Given the fact that 'off-the-shelf' policy packages (MCCANN & WARD 2012b: 327) are primarily transferred, though by no means adapted everywhere in their original form, the process of *homogenization* is not only a concern to multiple studies in contemporary geographic literature (Theodore & Peck 2012). Nevertheless, consensus about comprehensive convergence or divergence of municipalities' policies remains unreached in political science literature, for there are studies supporting and neglecting this thesis (DOLOWITZ & MARSH 2000; RADAELLI 2005). Contrastively, in PM theory policies "do not arrive at their destination in the same form as they appeared elsewhere. Yet they are not entirely different. They still bear a strange familiarity that exhibits and encourages some degree of 'policy convergence' across the world" (TEMENOS & MCCANN 2013: 349f.). Mainly, processes of contextualization trigger policy mutation as local or regional specificities require substantial adjustments. Yet, the cooperation

and interaction of globally acting consultants and local agents is constitutive for that ‘strange familiarity’ of particular policies causing PM’s appreciation of consultants to play a key role in contemporary policy making worldwide.

4.2.3 Consultants and Policy Mobilities

The great impact of consultants in modern policy making is largely uncontested in PM literature. Expressed more radically, HODGE & BOWMAN (2006) refer to the ‘consultocracy’ denoting the undermining of democratically elected public authorities by few experts that heavily influence politics on multiple scales. These actors, in fact, are not separately operating persons but members of ‘epistemic, expert and practice communities’ deeply entangled in globally stretched networks and the growing sector of policy business (PECK & THEODORE 2010b: 170). Although political science studies are frequently criticized for its paramount concentration on specific transfer agents, it is nevertheless fundamental to engage with those ‘mid-level engineers’ (LARNER & LAURIE 2010), as the addressed processes of policy making are inherently social ones. Consultants, seen as globally acting transfer agents, are considered sociologically complex as well, ‘located in (shifting) organizational and political fields, whose identities and professional trajectories are often bound up with the policy positions and fixes they espouse’ (PECK & THEODORE 2010b: 170). COOK & WARD (2012: 140f.) portrayed a detailed picture of transfer agents highlighting that experts like consultants are in turn socially produced by several practices of ascribing certain importance to them. They state, experts’ ability to create or at least shape influential narratives about the ‘truth’ of particular policies heavily depends on reputation attained by them (MCCANN 2008; COHEN 2011). It entails them to bring in new aspects, strike new paths or denunciate specific policy contents; processes that will probably provoke policy mutations. Therefore, experts embody superior importance in relation to other representatives of authority, being able to push or mobilize a certain policy with exceedingly compelling power (COOK & WARD 2012: 140f.).

Consultants' engagement in several policy making processes is increasingly decisive for successful policy transfer. Bringing back in mind policies' understanding as assemblage allows grasping the multifaceted processes that constitute specific local governance, economic management systems and ways of them setting up (HARVEY 2005; PEET 2007). PM therefore reckons consultants as nodes inside of policy knowledge networks acknowledging the organizational shift of public administrations to a more market-like and networking-focused system, frequently associated with a 'hollowing out' of the national state (JESSOP 2002; PRINCE 2012a: 188). Accordingly, consultants have great share in processes considered central in PM through their everyday work. For instance, the production of globalizing micro-spaces and relative homogenization tendencies of municipalities' policies depicted above as well as processes of mobilizing policies and their consequential spatial fixities.

In fact, various actors are interested in mobilizing, i.e. spreading, specific policies for predominantly economic reasons. Representatives of public authorities seek reputation by combining policy ideas with their own city or region and therefore attempt to create positive associations that may trigger economic investments. Consultants, in contrast, try to promote their services. The more certain policies circulate, the more potential projects they can support. As a result, it is essential for consultants to gain reputation and to prevail against competitors. In consequence PM literature focuses globally acting experts perceiving their fame as successful performance. Consultants' mobilization efforts on a global scale are facilitated by progress in technology inducing new possibilities to connect people and remote places, leading to new relational geographies of policy making. Infrastructures shaping the flows of policy ideas, models and knowledge, are thus tools utilized by policy agents to engage in the related processes and ease the transfer of policies from one location to another (COLLIER & ONG 2005; PRINCE 2010a). Yet, policies' processes of 'arriving at' a certain place remarks one main source for policy mutation caused by substantial adjustments to local institutional, political, cultural and socio-historical specificities (ROBINSON 2011b; 2015). Beyond, these policies also mutate

while in motion. The main reason to comprehend those alterations is the forging of connections between multiple actors during the transfer process which constitute several shifts of power-relations and steadily alters the level of knowledge and expertise in the appropriate topic (WARD 2006).

Attending to the last important processes of policy mobility in contemporary scientific literature it is – for the examination of *spatial fixity* – helpful to involve what assemblage thinking offers for analyzing the geographies of policy. These are: the cross-referential interplay of different elements which constitute the emergence of particular scales of political decision making, debates and conflict as well as the production of space that influences the temporarily definite extent of particular areas and their territorial organization (BRENNER 2001; MARTIN, MCCANN & PURCELL 2003). It is therefore an enlargement of what HARVEY (1989: 7) refers to by combining the shift from ‘managerialism’ of cities’ administrations to ‘entrepreneurialism’ and the impacts of capitalism on local governance, emphasizing the speculative character of (to this time) new public-private-partnerships and their aims of alluring external funding, direct investments or employment resources. Policies’ impacts, in consequence, range from the emergence of locally specific organization bodies conditioning a certain kind of governance to substantiations like buildings, rooms or papers which disseminate their effects locally.

Both notions of ‘assemblage’ and ‘mobility’ are paralleled by the third central concept in PM theory – ‘mutation’. In this regard, policy mutation can occur at every moment in policy making determined by multiple aspects that may induce policy adjustments and therefore account for its specific development path. Hence, mutation can never be understood as a separated process (GOTHAM 2014). Like other aspects already depicted with respects to ‘assemblage’ and ‘mobility’, analysis of the different elements’ interplay is the key to gain insights in the various practices and mechanisms entailing policy change in motion and at distinct places. Nevertheless, specific actors occupy a central position when it comes to mutation processes (TEMENOS & MCCANN 2013: 344). Given that policy models constantly

circulate inside networks of experts, mutation can occur during almost every situation, ranging from mobilizing and transferring to merely topical debates or implementations.

Taken together, assemblage thinking and its various components related to mobility and mutation almost necessitate substantial adjustments of consultants' professional performances over time (McFARLANE 2009; PRINCE 2010b). There are several studies about how and why consultancies utilize the outlined elements of PM to yield or enforce specific policy contents, i.e. how they entail policy mutation (e.g. PRINCE 2012b; 2014b). Thus, the notion of constantly new assembled, mobilized and mutating policies corroborates the understanding of policy mobility as 'one moment in a wider, transformative process, involving the ongoing mutation of policies and policy regimes in a manner that seems to be more deeply cross-referential and relativized than ever before' (PECK 2011: 793).

However, reducing policies' mutation and contextualization to necessary adjustments to external circumstances neglects the inherently social character of this process. Rather, constantly altering knowledge must be considered the decisive determinant for consultants' efforts of bringing in their expertise and provokes policy adjustments successfully. Interestingly, to this day little work is done on consultants' impacts on specific policies investigating the interplay of Policy Mobilities processes and the multi-faceted topic of knowledge related processes. As an example, LARNER & LAURIE (2010) focused on traveling technocrats considered as embodied knowledge that bear in the practical experience to realize (in this case) neoliberal projects worldwide. In fact, the centrality of actors for (policy) knowledge mobilization is likewise essential for the understanding of consultants' impact on contemporary policy making. Yet, a currently lacking detailed integration of knowledge dynamics surrounding these actors would correspond to the social character of learning processes and therefore accommodate the path-dependent and embedded constitution of an actor's knowledge base.

While all processes delineated above indicate the appreciation of required highly specialized (policy) knowledge, an appropriate and detailed theoretical involvement of these dynamics in PM lacks to date. Moreover, conceptualizations of consultants in Policy Mobilities theory perceives the heterogeneity of this actor group in size without having ascertained their impact on policy making processes through their work in detail (PRINCE 2012a: 196). Hence, PM lacks sensitiveness to the manifold organizational and topical specifications of consultants or consulting groups and their repercussions on policy making processes. It will turn out that research on knowledge-intensive business services (KIBS) offer beneficial conceptualization to overcome this theoretical black box.

Consequently, a complementary employment of an explicitly knowledge centering approach may constitute an expedient way to severely expand examinations on the social aspects and processes of consultants by involving their cognitive backgrounds and the wider knowledge dynamics they are engaged in.

4.3. Essentials of Territorial Knowledge Dynamics and KIBS Research

Analogous to PM, the approach on Territorial Knowledge Dynamics refers to a more relational understanding of processes and dynamics underlying innovation efforts. It emerged as a reaction to fundamental socio-cultural changes (primarily the new economic importance of services) and the increasing mobility of information, people capital and knowledge (CRESPO & VICENTE 2016; JEANNERAT & CREVOISIER 2015). Especially issues on the ‘creation, using, transformation and diffusion’ of knowledge by specific actors as well as their interactions inside innovation networks came into focus (STRAMBACH 2012: 1844; JAMES et al. 2016). Even though knowledge dynamics occur from macro to micro level, investigation on the latter predominate the scientific literature to date. This is primarily caused by considering knowledge dynamics and learning effects through cooperation as crucial for generating innovation. Accordingly, innovating is an inherently social process that is also dependent on its

environmental surrounding which means: territory, understood as the effect of socio-technical practices, matters (GRABHER 2004; PAINTER 2010).

4.3.1 Knowledge, Space and TKD

Involving territorial specificities and considering them as decisive for innovation processes provoked several theoretical and epistemological implications in TKD research. Particularly institutions like routines and organizational capabilities caused distinction between co-evolutionary cumulative and cooperative combinatorial knowledge dynamics (CREVOISIER & JEANNERAT 2009; HALKIER et al. 2012). While in the former uncertainty of innovative cooperation is reduced through stabilizing institutional commonalities, the latter emphasizes learning potentials dependent on differentiated knowledge bases (ASHEIM 2007; ASHEIM et al. 2011). Especially combinatorial knowledge dynamics aroused increasing scientific interests as it considers the multi-scalar and highly interconnected way conditioning contemporary innovation processes. The predominating notions characterizing these knowledge bases are *analytical* (scientific, theoretical), *synthetic* (technologic, problem solving) and *symbolic* (cultural, creating meaning) knowledge dynamics termed as the SAS model (ASHEIM & GERTLER 2005). In fact, every notion demonstrates an ideal type model of generating knowledge that practically never stands on its own. Rather, a mixture of synthetic, analytical and symbolic knowledge assembles knowledge bases with a certain type dominating. The dominating knowledge type thus determines the different ways in which learning effects – i.e. the capability of cooperating actors to generate, anchor and exploit knowledge – occur. What is important here is to emphasize the necessary epistemological sensitiveness to this taxonomy of knowledge types and their methodological implications for researching the complex field of knowledge dynamics (MANNICHE 2012). According to STRAMBACH (2012: 1851), synthetic, analytical and symbolic knowledge differs in the “mix[ture] of codified and tacit knowledge”

over time. Therefore, gaining insights into the ‘closed’ communities of innovation (and policy-making) networks is one key factor to properly understand the various underlying dynamics.

Moreover, knowledge dynamics’ peculiarities do not only vary by the configuration of knowledge types but by time, space and scale. On the macro level, technological progress and increasing specialization of global value chains necessitates and facilitates learning processes in distant places (CRESPO & VICENTE 2016). Inside these globally stretched innovation networks certain places or regions show superior innovative activity. TKD assumes local institutional environments as constitutive for this heterogeneity. Frequently, authors try to deduce policy recommendations on the bases of their findings, mostly to create the ‘perfect’ environment (territory) that entails and supports the decisive knowledge dynamics. Thus, successful innovation significantly depends on local institutional conditions and social linkages of involved agents on multiple scales (VALE & CARVALHO 2013). As the theory of TKD also attends to the time-dimension, institutional and socio-spatial alterations are considered crucial for innovation activity caused by the changing character of knowledge and networks configuration along the innovative process. Especially the method of compiling ‘innovation biographies’ (BUTZIN & WIDMAIER 2016; STRAMBACH & HALKIER 2013) represents a promising approach to grasp the multiplicity of changing aspects over time, tracing the institutional configuration of cooperative agents which try to establish new products or services.

4.3.2 KIBS and TKD

In analogy to PM, all dynamics described above are driven by interacting agents seeking to create marketable innovations. In consequence, these agents are subject of multiple research questions in TKD literature. Comparable to modern policy making, external experts have a great impact on innovation processes. A great amount of literature therefore examined the role of so called KIBS (knowledge-intensive business services) on innovation processes in general and, in the last years, increasingly on knowledge dynamics in particular (e.g. SANTOS-VIJANDE

et al. 2013; SCHIUMA et al. 2013; STRAMBACH 2008; 2010; 2012). Accordingly, one strand of TKD literature is to understand why KIBS act in the way they do in local institutional and social specificities. In this connection, BOSCHMA (2005) points out that there are different types of proximities determining learning processes of cooperating agents. Besides face-to-face interactions enabling access to valuable tacit knowledge – i.e. spatial proximity –, there are also non-geographical factors for successful learning activities between individuals (MATTES 2012; AGUILÉRA et al. 2012; HANSEN 2014). In addition to geographical and cognitive (converging knowledge bases) proximity, organizational, institutional and social proximity matter as well. It is therefore assumed that ‘actors are supposed to interact more with others when they share similar attributes’ (BALLAND 2012: 742). Or as STRAMBACH (2012: 1846f.) puts it: ‘[a]ctors in geographical proximity often share the same culture, the same institutional environment and social practices which create [...] cognitive proximity, the basis for effective communication and mutual understanding.’ Consequently, investigating these proximities helps to understand the micro-dynamics of innovation efforts between the involved actors and complements epistemological implications of knowledge bases and the SAS taxonomy.

Researching KIBS’ role and performance in innovation dynamics then requires positioning these agents accurately in the complex and locally specific social and institutional system that decisively constitutes knowledge dynamics. This – what can be called ‘embeddedness’ – is crucial for understanding KIBS’ ability of exploiting knowledge (STRAMBACH 2012: 1847). Accordingly, three major dimensions are central for future examinations. First, TKD research focusing KIBS’ behavior in innovation processes must consider the specificities of proximate and distant cooperation and the importance of the different scale on which KIBS operate. Exemplarily, globally acting agents need at least temporary spatial proximity with partners to build trust and therefore get in touch with valuable tacit knowledge (GÖSSLING 2004; TORRE 2008). Second, as institutional and organizational configurations vary by scale, KIBS’ ability to exploit knowledge do so as well (GRILLITSCH & TRIPPL 2013). It is therefore not only

important to focus on internal characteristics like the absorptive capacities of innovative agents but their interplay with external circumstances and changes. KIBS' competences to adequately customize their portfolio to societal changes are one factor for successfully innovate and tapping new markets (STRAMBACH 2012). In turn, they shape the material and non-material environment by setting up new buildings or rooms as working spaces for organizational bodies as well as by compiling papers and policies (STRAMBACH 2012). Finally, KIBS' ability to react on external changes also depends on success and failure in mobilizing knowledge inside innovation networks as the manifold processes of spreading, adjusting, updating and assimilating can lead to marketable innovations. In this connection, knowledge is made transferrable through codification, gets mobilized and needs to be anchored or (re-)contextualized in locally differing and constantly altering institutional environments of specific places (STRAMBACH 2012; CREVOISIER 2016; BERSET & CREVOISIER 2006). Merging findings of these multi-scale examinations, the interplay between individual and environment, and process-centered investigation creates a detailed picture of TKDs and KIBS' particular contributions.

However, subjective or individual motivations and values of KIBS – besides mere economical ones – are largely unstudied in geographical innovation research. This is especially remarkable as processes of knowledge mobilization have a great share of shaping particular 'truths' reflecting specific communities' hegemonic and interest-serving notions of subjects, concepts or problems (MCCANN 2008). Though, understanding KIBS as socially complex actors integrated in intertwined networks necessitates more research on this topic. Moreover, numerous examinations on innovation processes in general and KIBS' contributions in particular aim to publish policy recommendation for achieving best possible conditions to support appropriate innovation dynamics (CAPPELLIN 2007; HALKIER 2012; DAHLSTRÖM & JAMES 2012; JAMES 2012; COOKE 2012). Enhancements of policies, however, are largely attributed to public institutions acting independently, rational and unaffected by private agents.

Considering consultants as one category of KIBS cooperating with public authority in various projects, this notion cannot be maintained. Therefore, connecting conceptions of TKD and PM bears the potential to overcome these lacks by forming the theoretical and methodological basis for investigating the complex set of KIBS' influence on policy innovation and its underlying knowledge dynamics.

4.4. Enriching Approaches – Synergies of PM and TKD

The approaches of Policy Mobilities and Territorial Knowledge Dynamics were applied to case studies focusing on quite different scales. Despite setting unequal empirical emphasis, these studies appreciate the accentuated openness towards theoretical and methodological amendments (MCCANN & WARD 2013; PRINCE 2013; COOK 2015; BAKER & TEMENOS 2015). Therefore, both approaches are by no means complete, all-embracing or – partially – even coherent concepts. They are rather characterized by permanent renegotiation, conceptual alterations and combinations with other theoretical frameworks to enlarge and detail investigations of related topics. This basic logic of conceptual openness enables the search for suitable and complementary explanations of underlying dynamics and central subjects' understanding. Due to several conceptual lacks that have been revealed above, grounded examination in the respective social dynamics and consultants' contribution in the complexes of PM and TKD theory are substantially hindered (MCCANN 2013; STRAMBACH 2008). However, this paper considers consultants – as one sub-category of KIBS – the key to show both approaches' conceptual synergies. On the one hand, this perception is based on the great amount of work done on the impact of knowledge-intensive business services and their role for knowledge dynamics of innovation processes mostly at the enterprise level that anyhow bears great potentials for enlarging investigations of analogous dynamics in the public sector, especially in policy making (STRAMBACH 2010). On the other hand, as consultants primarily trade and mediate knowledge, they act as nodes or conjunctions between policy making and

knowledge dynamics. Therefore, especially in times of the ‘consultocracy’ it is indispensable to analyze the interconnection of both spheres – knowledge focusing micro dynamics and the wider structures of contemporary policy making – that enable to generate a specific ‘truth’ (LARNER & LE HERON 2002: 762). This section therefore aims to delineate synergetic effects of PM and TKD with a special focus on consultants’ works to tackle the fundamental lacks of under-theorization of knowledge and consultants in PM and to clarify following implications for further research in this field.

4.4.1 Variegated ‘Consultocracy’

At first sight, one significant difference in PM’s and TKD theory’s conceptualization gets obvious: the discrepancy between understanding consultants as primarily global actors which need local linkages to access useful policy knowledge in contrast to institutionally embedded KIBS whose innovative activity largely depends on their local environment and the specific networks they are entangled in. In this connection, it is plausible to question the rather onesided notion of consultants’ work in PM recognizing the young and relatively limited investigation efforts in this topic to date. In contrast, KIBS’ essential role for modern innovation processes has been appreciated in geographic innovation research for years. Consequently, and bringing back in mind the analogy of policy mutation and innovation, a much more comprehensive understanding of consultants’ conceptualization in PM is suggested that may be termed, in dependence on BRENNER et al. (2010) ideas on differentiated neoliberalism, as ‘variegated consultocracies’. This theoretical amendment indeed implies fundamental changes for the perception of consultants in PM theory. Three of them shall be delineated in the limited space of this paper in more detail to better discern the explicit additional value for contemporary PM theory.

First, multi-scalarity, nothing new to PM, but largely neglected in PM empiricism, gains higher importance. Appreciating KIBS’ involvement in numerous networks necessitates

sensitiveness to scales apart from just local or global ones. Deeper awareness of multi-scalar processes of policy making breaks this dichotomy and suggests the existence of case-specific constitutionalized scales.

In fact, while both PM and TKD point out that consultants (and KIBS respectively) are constituted by and take part in social processes inside globally stretched networks (PRINCE 2012a: 189), only considerations of TKD theory highlight the different configurations of consultants' entanglement depending on the specific scale in which this networking takes place (STRAMBACH 2012). The point to make here is, of course, not to abrogate the importance of global flows and local circumstances but to suggest awareness of policy making dynamics that are not exclusively located on a global scale. Rather, pursuing a relational consideration of scale calls for increased awareness of the spatial and social range of policy networks KIBS are engaged in. Accordingly, changing particularities of scale and space go hand in hand. Its empirical appreciation is therefore requisite for appropriate examinations in this field.

The specific institutional environments – i.e. the particularities of 'space' – impact the performance of consultants and policy making processes leading to the assumption of spatial heterogeneity of (policy) knowledge dynamics and therefore to centers of policy making. This claim stays in line with the association of particular cities with 'best practice' models of a certain policy (MCCANN 2013: 6). However, the theoretical starting point for this phenomenon is quite different in PM and TKD. In the former, policies (and the cities they are originally implemented in) are 'talked up' for political reasons and the success of regions as well as related policy agents. In the latter, vibrant policy development is determined by the embeddedness of involved actors, to say their social and institutional environment that set the frame for successful knowledge dynamics (CREVOISIER 2014: 556; MCCANN & WARD 2015: 829). Consequently, multi-scalarity introduces institutional specificities to local policy making. Apparently, policies' successful mobilization does not only depend on the political will of spreading a

preferred strategy to gain reputation. Rather, the local institutional specificities determine central actors' successful cooperation and enable them to boost and mobilize a favored policy.

This leads over to a second implication of considering consultants as locally embedded actors: the case-specific configuration of policy agents' interactions. To appreciate the importance of innovation networks' configuration and the multiplicity of co-operative relationships, contemporary research in TKD focuses on why the involved agents act in certain ways by investigating their specific institutional surrounding (STRAMBACH 2012; BALLAND et al. 2015). Here, as stated above, several 'proximities' are regarded decisive for effective collaboration in innovation projects (BOSCHMA 2005). First, cognitive proximity of interacting agents eases cooperation costs as there is few time and money spent on creating consensus about particular topics. In this respect, TKD tries to investigate resemblances of the involved actors' knowledge bases. Second, institutional, social and organizational proximity facilitates improved knowledge integration through trust caused by the same legal frame as well as concordant personal values, conventions and societal norms. Third, spatial proximity and the 'territorial configuration' of actors clearly impacts the way knowledge dynamics occur. In PM, this point gets endorsed by considerations on globalizing micro-spaces postulating that spatial proximity and following exchange of tacit knowledge causes mechanisms of policy mobilizations and mutations (MCCANN 2008). In consequence, the concept of different 'proximities' enables to investigate the specific dynamics of knowledge circulation and policy making on multiple scales.

Correspondingly, consultants' acting inside policy networks gets far more circumstantial in PM research. On the one hand, consultants' individual behavior depends on interpersonal relationships to other policy agents. On the other hand, interrelations with spaces matter as well, especially how spaces are shaped by actors and vice versa. Accordingly, both the PM and TKD approach embrace the difference of spatially proximate and distant cooperation forms. Particularly consultants acting globally are considered reliant on temporary get-togethers with

important policy agents to access tacit knowledge crucial to successful work (TORRE 2008; HIER & WALBY 2014: 157). Although technological progress enables long distant communication, it is spatial proximity and the informality in diverse situations that generates the necessary trust for exchanging confidential knowledge (GERTLER 2003). In other words, consultants ‘jump’ between different scales to gather scale-specifically accessible knowledge.

In view of this, the third central implication of regarding consultants as locally embedded actors is the importance of knowledge for their everyday work and therefore the involvement in (policy) knowledge dynamics. Following these considerations, consultants can be considered as ‘nodes’ inside policy networks that abstract complex knowledge and policy making dynamics. Beyond that, the ‘nodes’ themselves vary in their organizational configuration ranging from individual experts to collectively acting consulting groups (PECK & THEODORE 2010b: 170). Indeed, this shows the complexity of the topic, as specific configurations influence the way consultants’ ability to exploit knowledge or to react on societal changes (STRAMBACH 2012: 1858). Nevertheless, unraveling these complexities is the basis for understanding under what circumstances consultants operate successfully or fail to properly spread, assimilate, contextualize and integrate crucial knowledge in the diverse processes of Policy Mobilities.

Taken together, these implications stay in sharp contrast to the current inherent uniformity of consultants’ global impact on policy making processes. Appreciating variegated consultocracies in PM therefore refers to and dissolves several theoretical and epistemological lacks. Although PM frequently highlighted the importance of scale so far, contemporary literature largely neglects sensitiveness to the multiplicity of levels, where knowledge dynamics as well as policy mobilities occur. It is important to define consultants’ ranges of professional activity since processes of exploiting knowledge do not only depend on individual absorptive capacities but the organizational level that varies by scale (STRAMBACH 2012). In these regards, place and space shape consultants’ behavior as well. Accordingly, and following the notion of path-dependency, the temporary status of a specific place’s institutional characteristics must be

considered when investigating the micro dynamics of policy knowledge exchange. In turn, these dynamics can change the place's specificity through actors that may set up new buildings, rooms or other material entities as well as give rise to new networks or organizational bodies. Therefore, researching the co-evolution of actors and places they are working in, bear the potential to better understand what impact spatial and institutional proximity may have on knowledge related micro dynamics.

In addition, a changed notion of embedded policy agents and the underlying dynamics they produce amends the intrinsic perception of policies. Analogous to innovations, policies are indeed the obvious outcome of complex knowledge and network-based dynamics over time (CREVOISIER 2016: 191). Policy creation or even mutation can be regarded as an innovation triggered endogenously by local specificities or unintended effects of the multiple mobilization processes referred to in PM. In this context, prevalent PM research focuses on the current state of ongoing dynamics, the TKD approach accessorially integrates the dimension of time and suggests different methodological approaches for its investigation (CREVOISIER 2016). Basically, communication and interactions permanently alter the quality, quantity and configuration of individual actors' knowledge state on specific topics (ASHEIM & COENEN 2005; FAGERBERG et al. 2012). Hence, policies are path-dependent. Partial adjustments are based on former outcomes of intricate multi-level dynamics between decisive actors. It is therefore plausible to speak, analogous to the term 'innovation biographies' coined by BUTZIN & WIDMAIER (2016), of 'policy biographies'. Though, rather than merely analyze institutional changes over time, investigation must focus on the canalization and employment of knowledge in policy making processes through specific actors. This is especially important as policy innovations must also be considered as products and triggers of valuation shifts inside the societal environment (HUGUENIN & JEANNERAT 2017). In view of that, policies are regarded temporary fixated strategies assembled by the particular knowledge that is for some reasons

taken as the best fitting answer to handle a specific problem. The insufficient recognition of time in PM theory – frequently criticized in corresponding literature – is thereby responded to.

Greater recognition of scale, space and time, of course, does not discard existing findings on consultants' engagement in PM completely but tries to beneficially amend them. According to that, MCCANN (2013: 9) pointed out that consultants' success also depends on their reputation to a remarkable degree. Reputation, as an act of ascribing superior expertise to specific actors or organizations, is clearly a social construction accepted inside a specific community. It is therefore a macro level phenomenon, rather indirectly dependent on micro level processes and dynamics (LOVE & KRAATZ 2009). In fact, combining TKD and PM methods for investigating and setting the different scales into relation will shed more light into these complex processes of how reputation evolves. It is therefore of interest what kind of reputation consultants have in their specific policy network as it preconditions to what extent they are enabled to 'shape the truth' characterizing a certain form of consultocracy (MCCANN 2008).

An appreciation of variegated consultocracies indeed strongly refers to assemblage thinking, i.e. the individual constitution of entities by its underlying dynamics. Hence, assemblage thinking facilitates detailed investigations not only of individuals' or small groups' acting but of whole policy making networks and their respective contribution to innovative alterations of certain policies. It offers a far more detailed approach for investigating policies as well as innovations in general, giving a useful frame for integrating the multiple processes of (policy) knowledge generation, alteration and refusal over time. In fact, the multiplicity of existing assemblages coevally facilitates and complicates investigations on different scales of policy making, from global to micro level dynamics. Nevertheless, the actors' embeddedness marks the decisive determinant for elucidating specific cognitive backgrounds and their particularities of engaging in policy networks. Hence, in response to requesting 'greater appreciation of embeddedness' (TEMENOS & BAKER 2015) in PM research, the revealed epistemological lacks that hindered its detailed examination so far must be overcome.

Suggesting a possible research agenda is therefore a prerequisite to integrate (policy) knowledge dynamics in PM appropriately.

4.4.2 Capturing the complexity

The existence of variegated consultocracies that are characterized by their institutional particularities and case specific dynamics indeed strongly enlarges the perception of what Policy Mobilities include. In this section, we want to suggest a research agenda in response to the manifold explanations and following epistemological requirements relating to variegated consultocracies. Consequently, by reflecting the theoretical amendments above, we assume three domains as most beneficial to concentrate on empirically.

First: the micro level including all knowledge dynamics enlacing the individual or a specific group of individuals, examined by pursuing methods of the TKD approach (KAISER & LIECKE 2009; STRAMBACH & KLEMENT 2012). In fact, empiricism must center the involved actors, as they embody (policy) knowledge and entail knowledge dynamics through their interactions. Especially investigating the development of common sense in (policy) innovation networks inside a company or between co-operating partners bears great potentials to understand underlying *intra-organizational* knowledge dynamics in contemporary policy making. Employing the proximities approach in conjunction with SAS analysis enables to detail the differences or similarities between cooperating actors and facilitates to scrutinize strategies of overcoming possible obstacles during the cooperation process. In the end, a coherent consulting product (a recommended policy) represents the temporary accomplished common sense of the involved actors.

Second, processes of combinatorial knowledge generation during specific projects stand in the center of the embedded network analysis. Special focus must be set on macro level processes of contextualizing consulting products with special attention paid to the multiple *inter-organizational* dynamics of PM and TKD. Positioning KIBS inside this complexity will shed

more light on the socio-spatial dynamics and mechanisms standing behind variegated consultocracies. From methodological perspectives, a clear investigation blueprint lacks to date. However, some recommendations for grasping the multi-faceted processes of social interaction are given (COCHRANE & WARD 2012; PECK & THEODORE 2012; SCHWEGLER & POWELL 2008). Staying close to the consultant(s) and taking part of their rather ‘closed’ practices remark a promising, but certainly laborious approach to dissect consultants’ everyday work, for instance what their motives and ideological background are or what strategies they employ to impact policy making. The aim is to ‘see like a consultant’ (PRINCE 2012a: 197, adapting SCOTT 1998), i.e. to become the ‘socially complex actor’ involved in policy making (MCCANN 2011b: 143). Indeed, caused by its enormous required investments, empiricism on this level does not exist to date. Nevertheless, ‘following the consultant’ displays a beneficial opportunity to build trust, descry secret aims of the actors and therefore understand the multiple interactions of communication and sense-making during policy making processes. To complement this rather ethnographic approach a delineation of the policy’s ‘biography’ with special focus on surrounding institutional developments over time is suggested. In close analogy to innovation biographies this method sets the frame to embed consultants’ operations in a local context.

Third, analyzing the cognitive adjustments of consultants’ knowledge level during specific projects enables to detail the multiple learning dynamics occurring on different scales. It therefore connects practical experiences with theoretical expectations on the success of the consulting product. As this mechanism is crucial for assembling and developing the consultants’ individual knowledge level, examining these interconnections enables to apprehend the underlying dynamics that are decisive for policy mutation, mobility and successful (re-) contextualization. This certainly requires permanent awareness of how, why and where personal attitudes of consultants towards particular issues change over time. Especially ‘situations’ where multi-scalar interconnections occur in practice must be in empirical focus as micro and macro dynamics meet in those spaces and commonly comprise

occasions of maintaining pivotal informal contacts (MCCANN & WARD 2012a). Still, knowledge about the involved actors and sufficient trust are the preconditions for accessing informal communication without significantly adulterating them for scientific examination.

In summary, findings of the three domains indeed should not be considered mutually unrelated. The results' combination creates a broad understanding of the socio-spatial processes ranging from underlying knowledge dynamics to superordinate policy mobility processes and expatiates what stake specific actors like consultants have in this multi-facet assemblage over time. Of course, these empirical accommodations are only a first step toward an inclusive and integrative perspective on the role of policy knowledge in PM theory. Proving and developing them in future studies states a desirable scientific contribution to further increase Policy Mobilities' explanatory power.

4.5. Conclusion

Investigating experts' decisive role in today's politics must be one vital point in critical geography. In this paper, we delineated synergies of the two approaches of Policy Mobilities and Territorial Knowledge Dynamics which we tried to incorporate in a first proposal to frame empiricism in this field. Setting a focus on multi-scalarity, the integration of time and reckoning the crucial position of policy knowledge dynamics is the key to 1) properly locate experts in policy making networks and 2) to analyze their specific influence on central policy making processes. Connecting PM and TKD enables us to exceedingly consider experts' individuality (knowledge base, personal background, behavior etc.) and the peculiarities of the policy regimes they are engaged in. It widens the perception of consultants from primarily globally acting actors to all scales and gives a blueprint to case-based in-depth and comparative empiricism. These issues bear great potentials to further scrutinize the highly differentiated complex of variegated consultocracies. Yet, to receive generalizable results in the future, combining PM and TKD provides a promising tool that enables to conduct systematic

4.5 Conclusion

comparisons of the unfolding policy making and moving processes in time and space. In addition, it offers a possibility to increase the insights into institutional work and localized institutional changes in such processes.

5 Micro-Level Knowledge Dynamics in Policy Mobilities: Inventing a Policy for Sustainable Economic Development in Hesse, Germany

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Submitted to Geografiska Annaler on 06.04.2021

Abstract: The policy mobility literature to date perceives knowledge primarily as a tool used to socially reproduce political agency. This paper argues that while this macro-level perspective contributes to explaining the shaping of global policy assemblages, analysis of micro-level dynamics in policy making processes are largely neglected. By examining the usefulness of the Knowledge Dynamics approach borrowed from geographical innovation research, supporting and impeding factors during a policy innovation process are revealed. Using a case study about the invention of a policy for sustainable regional economic development by several collaborating consultancies in Hesse, the paper shows that analyzing knowledge dynamics and knowledge-related practices enables in-depth understanding of intra- and inter-organizational policy making processes. Moreover, benefits and shortcomings of this empirical approach are critically discussed.

Keywords: Policy Mobilities; Knowledge Dynamics; Policy Knowledge; Consultants and Consultancies; Agency; Proximities

5.1. Introduction

Literature on policy mobilities has undergone significant progress over the last few years. For example, contributions of counteracting empirical bias on reputedly ‘successful’ policies and a much more differentiated perception of assemblage thinking as a strong tool for empirical analysis led to promising ways for future policy mobilities research (Prince 2017; McCann 2017; Lovell 2019). Furthermore, and as the basis for this article, the aspect of policy knowledge recently moved into focus in multiple studies (e.g. Wood 2016; Bok and Coe 2017; Jenkins 2017; Werner and Strambach 2018; Frantzeskaki and Rok 2018; Heino and Hautala 2021). In early work on Policy Mobilities, knowledge and its characteristics has been primarily considered as a tool used by policy actors for producing specific political agency on the macro level. McCann (2011a) argues in his article on the connection between policy mobilities and global circuits of knowledge that policy knowledge has a dialectical character of tacit and codifiable. Knowledge is embodied by certain actors, so that these are understood as drivers of global knowledge flows. Thus, policy knowledge is mobilized and stabilized in networks facilitated by infrastructures and products such as e-mails, presentations or reports. The interactions among policy actors create global networks of knowledge exchange in which cities function as nodes. In cities, actors, and thus knowledge, of different scales come together and form site-specific assemblages in which policy-related knowledge is changed, negotiated, mobilized and exchanged (McCann 2011a). Analyses following this conceptual understanding therefore do not focus knowledge itself but its strategic usage in the social construction of ‘best practice’ policies that takes place in globalizing micro-spaces (Larner and Le Heron 2002).

Based on this, Russel Prince’s studies on consultancies’ everyday work delves deeper into the socio-spatial effects of knowledge generation on the global assemblages of Policy Mobilities (Prince 2012; 2014a; 2014b). He argues that the generation of calculative knowledge in the cultural sector enabled new governance methods and produced new spatialities. He describes that, on the one hand, the creation of new indicators empowers evidence-based policy

making in the cultural sector (Prince 2014b). On the other hand, regional comparisons about the effect of policies in the cultural sector are made possible causing new relationalities of regions (Prince 2014a). The analytical focus is on the social construction of political agency that enables consultants to legitimize their position as experts by using calculative knowledge. Hence, by generating a specific type of knowledge consultants create the socio-spatial contexts that ensure their own social status as experts.

Focusing the socio-spatial impacts of policy knowledge on the processes and practices of actors in trans-regional networks has provided valuable insights into the reproduction of global policy assemblages. Yet, knowledge-related processes at the micro level remain largely ignored and the substantial character of policy knowledge is reduced to the duality of tacit and codifiable knowledge (McCann 2011a). Geographic innovation research, however, significantly refined and developed the understanding of and empiricism on knowledge in the past decades. Consequently, findings from geographic innovation research can also help shed light on the micro-dynamics of knowledge in Policy Mobilities. In this regard, Werner and Strambach (2018) claim that insights from knowledge-intensive business services (KIBS) research and knowledge dynamics contribute to better understanding how and why specific knowledge prevails in the contested arena of contemporary policy making. This claim, however, still needs further empirical evidence.

Against this background, this article uses a case study to explore the relation between knowledge dynamics and the practices of assembling policies on the micro level. The Knowledge Dynamics approach (Crevoisier and Jeannerat 2009) is applied to empirically illuminate the case study of four collaborating consultancies who jointly tried to generate a policy for sustainable regional business development between 2014 and 2018. Objectives of the article are to deconstruct (1) how agency and knowledge determine the policy innovation process, (2) how social and professional environments shape the process-related practices and (3) how these practices in turn shape the environments they are situated in. To delve into the

specificities of the nature of policy knowledge, we thereby focused on practices of situated learning, knowing in action and the connection of communities and space revealing some crucial supporting and impeding aspects for the process of policy innovation.

The article is organized into five sections. Section two outlines the interdependencies of micro-level knowledge dynamics, agency and the socio-spatial contexts they are embedded in. It is argued that concepts borrowed from geographic innovation research complement and detail theoretical notions of policy knowledge as well as its empirical investigation. Section three then gives an overview about the used methodology reflecting on the usefulness of Actions Research for investigating knowledge dynamics in a specific project. Based on this, section four presents a case study about the collaboration process of four consultancies seeking to invent a new policy product for ‘sustainable regional economic development’. In this case study empirical focus was laid on the interplay of policy knowledge dynamics and the practices aiming to establish or reproduce different proximities among the actors. As a result, supporting and impeding factors during the policy innovation process were revealed. Section five concludes by discussing central findings and limitations of integrating policy knowledge dynamics and agency for structured empiricism in Policy Mobilities research.

5.2. Policy knowledge dynamics and agency

To this day Policy Mobilities research lacks from in-depth empirical evidence on micro-level dynamics of knowledge contributing to understanding how and why particular knowledge prevails in the political arena. Although understanding these dynamics would clarify the development and character of multiple political processes, specific practices and underlying knowledge dynamics were comprised at best indirectly in empirical studies on policy mobilities so far (Larner and Laurie 2010; McCann 2011a). Admittedly, there are two aspects that still impede investigation of policy knowledge. First, knowledge lacks theoretical concreteness in Policy Mobilities. As mentioned before, for a long time, knowledge was understood rather as a

tool and an unlimited, unrestrained resource for policy actors utilized to shape the global assemblage of policy mobilities (Prince 2014a; 2014b). Following the notion of geographic innovation research, knowledge is conceptualized as the ‘socially constructed outcome of interactive learning processes, communication and mutual understanding among the actors’ (Strambach 2012, 1846). This definition shifts the focus of research from the usage of knowledge for political purposes to its dynamics and effects on assembling specific policies. Moreover, a closer look on the structure of knowledge-intensive business services reveals that the notion of globally acting experts rather explains exceptional cases due to the great amount of small and medium sized consultancies facing limited capacities, capabilities and areas of operation (Castaldi, Faber, and Kishna 2013). Therefore, the social construction of knowledge primarily takes place on a regional level and, in the case of consultancies, even within the organization on the micro level. Second, the effort of investigating knowledge dynamics empirically is comparatively high. Especially processes inside consultancies are hard to grasp as studies must try to examine and – at least partially – unfold the most valuable good of these actors: knowledge. Therefore, knowledge-related practices in policy mobilities facilitating the generation, combination, (re-)negotiation and marketization of specific policies remained black boxes so far. We want to substantiate this rather unsatisfying notion of policy knowledge by presenting a case study on knowledge-related practices and underlying knowledge dynamics inside a consortium of four consultancies that tried to invent a new policy product. But before detailing the case, this section outlines key elements of knowledge dynamics and its expression through case-specific agency that, as we will see, partially coincide with and partially complement existing concepts in policy mobilities (Werner and Strambach 2018).

As mentioned above, speaking of knowledge in Policy Mobilities requires definition of what ‘knowledge’ means. Following Strambach (2008, 153) knowledge is ‘not only understood as an object, a public or private good that can be exchanged; it is [...] also viewed as a collective and complex path-dependent activity.’ Complexity and path-dependency in knowledge

production and change arise from social processes (Strambach and Klement 2012), e.g. interactions in formal and informal networks, knowledge gathering from various sources and channels, or the multiple interconnections between innovators and their socio-cultural environment (Grillitsch and Trippl 2014). Therefore, knowledge is basically constructed by communication processes among individuals through which it is created, used, transformed, moved and diffused – in other words: through interactive processes summarized as knowledge dynamics (Faulconbridge 2006; Strambach 2008). This relational approach on knowledge creation and innovative activity reframed former and rather linear innovation models to a much more comprehensive perception. The Knowledge Dynamics approach focuses on mobilities and anchoring processes of knowledge driven by diverse actors that coevally shape the socio-spatial contexts they are embedded in (Crevoisier and Jeannerat 2009; Crevoisier 2014). Hence, there is a ‘distinction between an epistemology of knowledge as a possession and as practice’ (Vallance 2011, 1102). The practices in which these knowledge dynamics unfold are therefore fundamentally determined by individual knowledge bases on the one hand and the social context of the actors involved on the other hand (Rutten 2014; Asheim, Grillitsch, and Trippl 2017).

As knowledge is socially constructed through interactions, the central point for examining knowledge dynamics is that it must be (re-)produced by cooperating actors. Cooperation patterns are in turn strongly dependent on the configuration of social relationships among network members (Mattes 2012). Boschma’s (2005) contribution on the importance of different proximities among cooperating actors depicts a useful way to structure these diverse interrelations and indicates supportive or adverse configurations of innovative networks. It is argued that mutual understanding and eased communication are supported when the actors involved share the same or at least similar cognitive (shared knowledge base), social (shared personality characteristics), institutional (shared rules, laws, norms, values, routines) and organizational (shared organizational logics) framings (Strambach and Klement 2012; Mattes

2012). In addition, spatial proximity during cooperative projects enables decisive trust-building and is essential for sharing valuable informal knowledge. Proximities therefore systemize interrelations of actors in order to understand the specific implications for the cooperation performance in innovation processes. Zenker and Doloreux (2008, 338) summarize the connection between proximities and its potential implications as follows: ‘Geographical proximity may facilitate face-to-face contacts between different actors, whereas social and cultural proximity between actors shape the frame for common rules and understandings. Cognitive proximity between different partners in innovation is necessary for knowledge generation and learning as prerequisites for innovation.’ Of course, there is a bulk of literature in innovation studies that further refined the proximities concept in the past fifteen years (see e.g. Malmberg and Maskell 2006; Balland 2012; Balland, Boschma, and Frenken 2015; Rutten 2017). What is important here is that researching proximities depicts a promising way to examine the relations of involved actors and may reveal decisive supporting and impeding factors for policy innovations. As innovation networks may change over time, proximities between collaborating actors might change as well. This necessitates awareness to varying network configurations as these may include other scales, new actors or altered institutional frames (Strambach and Klement 2012).

In this sense, knowledge and social context determine practices of actors as their knowledge bases enable them to decide whether they want to address and maybe solve a problem or not. Faulconbridge (2006, 518) goes further and argues that there is a ‘fundamental difference in epistemology between studies of the practice of knowledge transfer and the “social production of knowledge” in organizations and the different spatial constraints on each practice.’ He points out that learning activities are primarily facilitated and restricted by shared practices and not only by a specific form of communication or geographic distance. The emergence of trust, mutual understanding and respect is therefore not bound to local relations and necessitates to think actors’ social embeddedness beyond scale-based boundaries (Faulconbridge 2006). In line

with Rutten (2014), we see the individual, and not the organization, as the driver of knowledge dynamics and as agents of learning. Setting individuals in the center of innovation and knowledge research demands much greater awareness of the social contexts these individuals are embedded in as it strongly determines questions of agency by its specific norms, values, conventions and routines (Rutten 2014). Yet, different approaches from TIM to Communities of Practice (CoP) lack from sensitiveness to non-professional connections as sources of learning. Instead, individuals participate in shifting social contexts defined through the various connections to other individuals. Understanding social context as the socio-spatial environment that effects learning activities therefore allows conceptualization of how learning is shaped by these contexts and vice versa (Rutten 2014).

A promising view to grasp these multi-facet interconnections is introduced by Vallance (2011) as he highlights the dialectic relationship of situated practices and distributed relations producing spaces of collective learning through multiple elements of (daily) work that he terms ‘knowing-in-practice’ (Vallance 2011, 1102). The approach emphasizes examination of knowledge-related practices from two sides: first, how are situated practices determined by distributed relations and, second, how ‘distributed systems of knowing are produced through collective situated action’ (Vallance 2011, 1114). By focusing the embedded individual, the concept of ‘knowing-in-action’ enables us to describe the interplay of micro-level knowledge dynamics and the framing social context empirically. In fact, this dialectic thinking echoed in some spatial conceptualizations used in Policy Mobilities like globalizing micro-spaces (Larner and Le Heron 2002) or temporary clusters (Maskell, Bathelt, and Malmberg 2004) where assembling practices occur in an entanglement of localized interaction and global relations at a certain time and place. Yet, a detailed analysis of the interplay of agency and policy knowledge of the policy actors on the micro-level can reveal new insights on how and why specific technical knowledge prevails in policy assemblages.

Attention now turns to our case study on four collaborating consultancies in Hesse that seek to create a new policy product. By focusing knowledge-in-action and interpersonal proximities we aim to deconstruct and contextualize central cooperative practices during the innovation process to substantiate the case-specific role of policy knowledge dynamics.

5.3. Methodology

Before turning to the case study in detail, this section discusses the rationales for using Case Study and Action Research for analyzing micro-level policy knowledge dynamics.

In general, case studies enable examinations that answer the question of how and why specific dynamics arise and work (Eisenhardt and Graebner 2007). Yin (2009, 18) describes Case Study research as ‘an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident’. Therefore, the focus on individual cases is not to be understood as a disadvantage, but enables insights into higher-level systems, especially if specific cases and the structures in which they are embedded in cannot be clearly delineated (Gerring 2004; Yin 2014). Researching a specific policy innovation process thus facilitates understanding of the individual phenomenon and the approaches to problem solving as well as the possibility of further developing or detailing the framing theory (Eisenhardt and Graebner 2007; Merriam 2009; Baxter 2010). Moreover, case study research encompasses more than just the collection of data, but rather provides an attitude of the researcher who must reflect that the research subject is constituted by permanent interpretation through opinions, narratives, practices, and indications (Mills 2014). These interpretations depend heavily on the cultural and historical context of the case, so that, on the one hand, the current, socio-temporally fixed status of the research subject must be considered. On the other hand, case study research enables examining short-term and long-term developments (Baxter and Jack 2008; Crabtree and Miller 1999). Therefore, recognition of the social constructivist character of case studies conditions the

processes of inquiry, the methods applied, data collection, analysis, and interpretation (Creswell 2009; Mills 2014). Since the aim of case studies is to understand specific processes as precise as possible, qualitative survey methods are usually applied (Harrison et al. 2017).

To grasp the multi-facet dynamics of the collaborating consultants during the innovation process an Action Research approach was used. One of the authors was employed by a consultancy participating in the policy innovation project in order to gain deeper insights into their work. Action Research aims to scientifically contribute to solving specific problems and obstacles in real life and is therefore in line with the request of investigating micro-level knowledge dynamics during the policy innovation process (Coghlan 2019). Working inside a consultancy established understanding for the motives of action, the differentiated attitudes towards occurring problems, as well as the spectrum of personal values that let the authors ‘see like the consultant’ (Scott 1998, as quoted in Prince 2012, 197). Nevertheless, this methodology requires careful reflections as there is the challenge to maintain a balance between the perception of practical elements and their positioning in theoretical concepts during research. How this can be implemented has not been conclusively clarified. Yet, a cyclical approach has been developed over time, which includes the steps ‘planning’, ‘action and observing’ as well as ‘reflection and adjusting’ to conduct Action Research (Coghlan 2019). By repeating these steps, the research approach gets regularly adjusted to the status of a project making it useful for investigating projects that stretch over several months or years. The numerous notes gathered through observation and collaboration were complemented by short interviews, analysis of internal documents and informal conversation that revealed aspects on path-dependency, knowledge bases and proximities among the network actors (Muller and Doloreux 2007). These ethnographic components positioned the attended consultants into multi-scalar legal frames and retraced related policy knowledge gained in the past. Action Research thus proved efficient for unveiling and examining the intra- and inter-organizational knowledge dynamics and their related supporting or impeding effects during the innovation process (Ball

2016). The milestones of the Action Research cycles conducted in this case study are systemized in Table 5.1.

1st Action Research Cycle	
Planning	September 2014 Regular exchange and trust building with consultants, research of the available documents
Action and observing	November 2014 – kick-off meeting of the policy innovation process Data collection through participatory observation
Reflection and adjusting	December 2014 Reflecting the validity of the data and adjusting own role in the innovation process
2nd Action Research Cycle	
Action and observing	January 2015 - March 2017 – several regular meetings for exchanging ideas and assembling a policy Data collection through participatory observation and semi-structured interview with two consultants
Reflection and adjusting	April 2017 Reflecting the validity of the interviews and adjusting the interview guide, processing and analysis of the data collected
3rd Action Research Cycle	
Action and observing	August 2017 - October 2017 Data collection through adjusted semi-structured interviews with three consultants
Reflection and adjusting	November 2017 - February 2018 – ending of the collaboration process Processing and analysis of the data collected

Table 5.1: Research design based on the Action Research model (timeframe and phases)

5.4. Assembling a new policy – knowledge and practices in the policy innovation process

The case study in this article describes the cooperation between four consultancies in Hesse between 2014 and 2018. The aim of the cooperation was to create a policy for regional sustainable economic development. There were two crucial motivations for the initiation of this innovation process. First, the consultants' perception of business development strategies in Germany was considered as unsustainable. Public sector business development agencies were

not able to give impetus for sustainable change as existing policies to transition regional economies towards sustainability remained rather ineffective. The consultants' motivation to contribute to a socio-ecological transition was supplemented by economic thoughts. For, secondly, offering a policy for sustainable economic development also enables to initiate new projects and gain reputation as pioneers in this policy field.

The target group of the project were thus business development organizations that potentially implement the new policy. In Germany, these organizations act as a service provider for local companies on various questions of public administration (e.g. investor service, recruiting skilled workers, funding for start-ups, innovation transfer) (Röllinghoff 2014). As a voluntary task of German municipalities, business development organizations are structured as government agencies or as private limited companies, sharing the task to promote economic activities in their own region. In order to deal with and change the diverse activities of business development towards sustainability, consultancies with different specialized knowledge participated in the analyzed policy innovation process. The collaboration intentionally included diverse policy knowledge bases that ranged from expertise on sustainable business consultancy (consultant 3), to green politics and sustainability-related science (consultant 4 and 5), to regional economic development (consultants 1 and 2). The cooperation was grounded on social and institutional proximity as all consultants already knew each other from past projects and community events. Caused by the complexity and normative character of the sustainability topic, working with various knowledge bases was considered a promising way for successful innovation by the actors involved. From a theoretical point of view, the group was composed to exploit combinatorial knowledge dynamics that bear the potential to meet challenges of complexity and normativity inherent to sustainability topics (Strambach and Klement 2012). Organized in regular meetings and incremental working periods this temporary and loose cooperation as well as its connected networks therefore became the central research subject (Amin and Roberts 2008).

To capture knowledge dynamics during the innovation process, the analysis focused on the development and reproduction of proximities among the collaborating actors. Based on the insights from geographic innovation research, cognitive, social and institutional proximity are crucial factors for successful innovation processes as these enable necessary open and trustful communication (Boschma 2005). Due to regular meetings and the fact that all consultants showed significant overlaps in the organization of their daily work, favorable spatial and organizational proximity were given (Mattes 2012). The analysis thus revealed four essential practices of the consultants to establish or reproduce cognitive, social and institutional proximity seen as sub-goals to successfully create the new policy product. These practices are: following and critically examine relevant discourses as knowledge sources; co-producing policy products with clients; influencing the clients' institutional mindset to generate market demand; and utilizing strategic partnerships to increase organizational capacities. Figure 5.1 summarizes the case-specific connections between policy knowledge bases, practices and the establishment of social, institutional and cognitive proximity in order to create a new policy product.

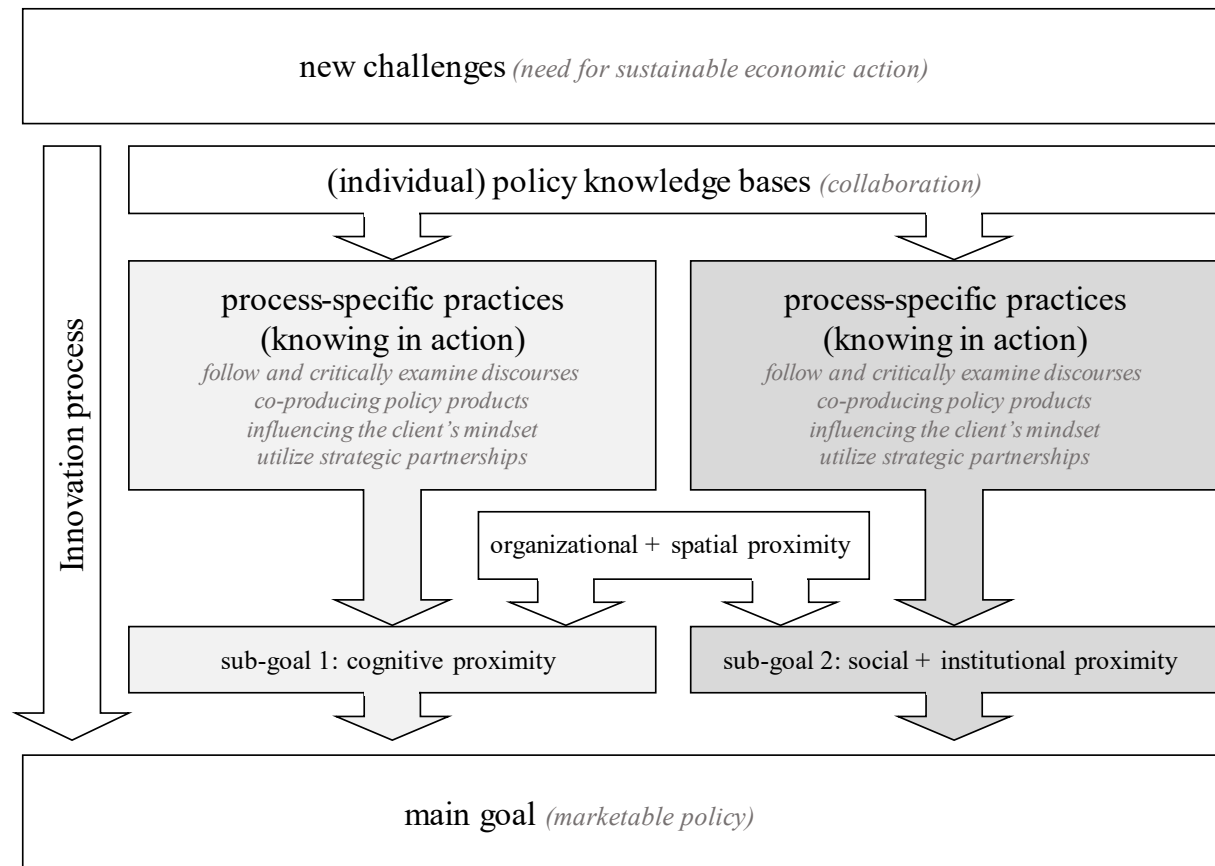


Figure 5.1: Connections of policy knowledge, practices and proximities in the innovation process

Practice 1: Follow and critically examine discourses

The innovativeness of consultants depends heavily on their ability to combine knowledge from different contexts into a coherent whole. This process requires a constant awareness and search for relevant information from various, temporarily important discourses and sources. Consultant 1 describes this constant awareness for useful knowledge as a particular way of working: ‘[Developing sustainable economic strategies] is, for us, a permanent benchmark leading to the fact that I always scan websites of regional business developers searching for references of sustainable approaches. Insofar, the daily examination of the topic of regional economic development [...] became heavily influenced by sustainable thinking.’ In fact, this way of working and its consequential knowledge advantage ensure consultancies to survive in national or international competition (Strambach 2008). Processing new information, its

decontextualization from different environments and the re-contextualization in new projects constitutes the knowledge-related basis of innovation efforts (Strambach and Klement 2012). Accordingly, there is a variety of knowledge sources ranging from cooperation with other businesses to regular feedback from customers. In addition, knowledge exchange in the consultants' private social contexts remain a fertile source for knowledge as it shows 'how other people realize their conceptions of life that I strongly admire' (Consultant 1).

Following relevant discourses and using knowledge for their own work always pursues the goal of developing consulting products in a practical and tailored manner. The critical handling of these information ensures that unforeseen events or side effects occur as rarely as possible within projects. In our case study, the practice of following and critically examining discourses addresses the challenge that 'we now need to examine how our products can be further developed through the integration of sustainability. We must do that by introducing the topic in customer meetings and discussing it with scientists and external experts [...] to constantly search for new ideas or to conjointly develop our products' (Consultant 2). However, the critical discussion of how to integrate sustainability into regional economic development strategies primarily took place inside the collaborating group.

Against this background, discussions on central challenges of the innovation process were also used to explore institutional proximities at an early stage. All consultants highlighted the great importance of shared values as a precondition for trustful working and the continuation of collaboration processes in general. In this regard, consultant 4 states: 'So, networks are strongly reliant on the participating persons. In some networks I have been involved for 20 or 25 years and some of the network partners have become close friends. [...] When you reach the level of knowing each other well, you may talk about subjects, you would not talk about with everyone; you would rather keep your knowledge to yourself. That is what networks are useful for: maintaining business and private contacts, noticing recent projects, [...] and to eventually appeal to someone working on an interesting project.' In effect, exchanging confidential and

therefore valuable information leads to converging cognitive, social and institutional proximities. Later meetings focused on content-related details after the social and institutional proximity was ensured. However, discussing approaches on implementing sustainable business development strategies revealed significant cognitive differences of the consultants. While the general need for a policy was seen by all actors, fundamental questions regarding the content and the implementation of the new policy remain unanswered. There was no consensus on key terms such as sustainability, economy and development. Additionally, some consultants preferred an incremental implementation of sustainability into regional economic development strategies (consultants 1 and 2) while others demanded bigger steps referring to an increasingly urgent situation caused by climate change (consultant 4). In fact, both approaches reflect different positions in the sustainability discourse.

Therefore, the practice of following and critically examining discourses during the innovation process contributed to revealing the specific cognitive, social and institutional proximity among the cooperating actors. The practice is thus central to jointly develop a policy product that fits the differentiated requirements of potential clients. In effect, even if no policy product was ultimately created in the case study, the process is seen positively by the consultants as their critical examination of different topics will continue based on an enhanced knowledge base, or as consultant 2 puts it: ‘We currently only have a label [for sustainability in regional economic development strategies], and we got several products that contribute to this label. And I would say, that is okay. I think we will continue developing the subject, be it in the structure of this collaboration, be it during discussion with external experts; we discussed it with [other scientific institutions], we discussed it in several contexts.’

Practice 2: Co-producing policy products

The second central practice in the innovation process can be termed as the co-production of new policy products. The practice primarily aims to bridge knowledge discrepancies between

the assumed need for sustainable strategies and the actual demand of future clients. During the innovation process, the group was aware of the limited market size for their rather progressive and unconventional policy. Yet, there was confidence of gaining valuable experience with a few pilot customers to make the policy attractive to a broader target group. In this sense, co-production is a common practice in the everyday work of the consultants involved as ‘oftentimes we see a promising policy or idea in one region that we may refine with our own thoughts, knowledge and experiences so that we may concluded that this policy may also fit and make sense in another regions’ (consultant 1). Specific projects proved as the most promising way to get in contact with innovative and regionally specific policies or policy parts (consultant 4). Hence, during the innovation process continuous interactions between the consultant and the client determined a co-evolution of the knowledge bases on both sides. Moreover, the working method of co-producing policy products must also be considered as an effect of existing legal regulations and the organizational structure of the public sector. One consultant explicates this by saying: ‘Innovation is the essence of our projects. Every project application must prove innovativeness. We need to develop new ideas and combine existing approaches to create something new as a premise to get a chance of commissioning at all’ (consultant 4). This statement indicates that the necessity of innovative co-production is strongly dependent on the socio-spatial environment which in turn is reproduced and influenced by the consultants’ practices.

During the innovation process, co-production regarding the policies content only played a marginal role. In fact, as content-related exchange between consultant and client primarily occurs during the implementation of a policy, practical knowledge was only indirectly integrated in the innovation process through experiences from past projects. However, the clients’ knowledge on the existing market structure revealed three decisive obstacles that determined the advanced innovation process. First, the right point in time is crucial for placing specific policy subjects on the clients’ agenda. In this context, reputation is a crucial factor, as

it grants consultants a leap of faith necessary for implementing new and experimental ideas in the clients' everyday work. By maintaining a continuous knowledge exchange with clients, the right moment in time to recommend an innovative policy product is easier to estimate and utilize (Consultant 5). In fact, this right moment was not noticed during the time of collaboration. In other words, there was no occasion to persuade a client to implement or co-produce a policy of sustainable regional economic development. Therefore, co-production on the one hand established cognitive proximity between the collaborating consultants and their clients. On the other hand, it also revealed that the time had not yet come to market the policy.

Second, sustainable policies to a certain degree require questioning and changing existing attitudes and individual behavior. The conflict of interests between economic and ecological objectives may lead to alleviated and consequentially ineffective policy goals. Against this background, co-production reveals the clients' openness or reticence towards recommended sustainable action. As sustainable action is strongly affected by individual values, several past projects were rejected by the consultants after an introductory conversation or even cancelled when in process. Consultant 4 states: 'Sometimes your own ideas do not stand a chance. And sometimes we cancel the project or get discharged from it because we are incompatible or do not show enough of give-and-take. [...] But I usually take it as a compliment when I am called too idealistic, although it is sometimes not meant as one'. The interview extract illustrates the importance of values for sustainable policies and shows the risk of too demanding goals the potential clients are not willing to follow. Therefore, exchanging knowledge and interacting during specific projects reveal cognitive, social and institutional proximities between consultants and their clients. That means, besides a common ground of knowledge on central terms and processes during a project, similar sets of individual values and attitudes are equally important for productive cooperation.

The third obstacle revealed through the co-production of sustainable economic development strategies depicts the monitoring of the clients' work as a hindering factor. Besides the

difficulties related to defining sustainability criteria and the oftentimes complex but hazy data gathering, self-imposed objectives bear the risk of missing them. In times of evidence-lead administration, policies that require changed practices and experimental approaches of monitoring progress appear rather unattractive (Prince 2012). Consultant 5 refers to the relation of measuring and political agency by stating: ‘Someone said once: “Weighing doesn’t make the pig fat.” That means, if I want more sustainability to happen, measuring doesn’t help me at first. Measuring only helps me if I can say: I want to change direction; I want to correct myself. Indeed, I somehow need a basis from which to start so that I can set goals, but the real work is not done when I only measure.’ Indeed, this rather risk-avoiding attitude in the public sector restrains innovative sustainability-focused policies, especially in areas that are still dominated by neoliberal, evidence-based policy making.

Summarizing, the practice of co-production enables consultants to get in touch with the highly specific knowledge of their clients about content-related as well as structural issues. During policy innovation processes, not only the social environment of the consultants is crucial, but also the embedding of the clients in their organizational structures. Even though the flow of knowledge among consultants and their clients facilitates the development of tailored policies that correspond to these context-specific circumstances, innovative policies face the problem of questioning established structures and thus sometimes fail (consultant 4). Implementing policies therefore depends on the individual motivation of the clients whether they want to go a new and perhaps more difficult path. In this sense, co-producing innovative policies clearly relies on and when in progress enhances social and institutional proximity between consultants and their clients.

Practice 3: Influencing the client’s institutional mindset

To create institutional proximity between consultants and clients, which is required to bring an innovative policy to the market, various communication channels are used to influence the

client's institutional mindset. This can be realized subliminally through the introduction of certain policy parts during a project work or directly through lectures, seminars, and discussions in which consultants present their experience and expertise. The latter, of course, are not free of individual values that, in interaction with the consultant's knowledge base, lead to a certain worldview which is also reflected in the innovation of new policy products. In our case study, the crucial point is not to generate even more knowledge; there is already sufficient information about the meaning of sustainable action. Rather, the practice of influencing the client's mindset aims at the practical implementation of policies dedicated to this topic. Consultant 1 says: '[We know] that knowledge on ecological contexts is important and already sufficiently available. And with a view of the current situation, it is crucial to focus on how to get individuals and groups to change their actions based on their knowledge.' Thus, the mobilization of specific knowledge contributes to shaping individual institutional mindsets and therefore may initiate changes to sustainability-oriented agency.

Accordingly, the process of consulting always aims to pass on codified and implicit expert knowledge to the client. However, which knowledge is transferred depends on the consultant's values and attitudes. The practice of influencing the institutional mindset is not limited to a specific point in time but is reflected in the day-to-day work of the consultants, in telephone conversations, in e-mails, in interviews, in the preparation of reports and in dealing with other people in their social and professional environment. Creating and offering a new policy product is a promising approach to market these values and to mobilize knowledge that serves the consultant's interest best. Furthermore, process-oriented consultancy creates multiple occasions to mobilize specific knowledge to the client. 'Our way of doing consulting business is increasingly linked to the vehicle of process support. And this expresses firstly a self-image and secondly an attitude, which I would describe as follows: The self-image is that we see ourselves as those who identify the local multipliers and enable them to continue on site. And that happens

less by writing an expert report, but by accompanying a process in which you motivate these actors and qualify them so that they can spread your ideas further’ (consultant 1).

These dynamics were also reflected in the policy innovation process. As the process went on, the institutional distances between the innovating consultants and potential customers became more and more obvious. Therefore, a first step towards a sustainable economic promotion strategy needed to be sensitizing clients to sustainability-oriented values. Consequentially, the policy concept was reduced to a series of seminars and workshops aiming to influence the clients’ institutional mindsets. Since this was not supported by all consultants, the institutional distance to potential clients was a decisive factor for ending the joint innovation process. Nevertheless, the case shows that close interactions with the client and the mobilization of specific knowledge is crucial to lay the institutional basis for marketing specific policies. Yet, this practice also requires a constant and high input of resources and capacities of consultancies indicating a high impact on the economic efficiency of policy innovation processes.

Practice 4: Utilize strategic partnerships

A fourth central practice during the policy innovation process was the utilization of strategic alliances. In our case study, the existence of strategic alliances between different institutions (research institutions, other consultants, professional and organizational service providers etc.) was the result of limited resources of a single consultancy. Both knowledge and human resources play a crucial role in implementing complex policies. The need for cooperation is exemplarily reflected in the statement by consultant 2: ‘We cannot rush forward as quickly as we want [...] because we want to push a train and not a small car. The latter I may can push on my own. To push the train, however, you need assistance.’ In addition, when applying for tenders, especially when developing living labs and policies deriving from them, a consortium of different institutions is demanded requiring an intact actor network for quick reaction

(consultant 4). Besides this rather pragmatic necessity of joint application and work, the configuration of alliances is strongly dependent on the social and institutional proximity of the cooperation partners. During the policy innovation process, care was taken to ensure that ‘not just any people were invited to the working group, but rather those to whom we assumed a certain degree of agreement with our values’ (consultant 1). As described earlier, the critical examination and discussion of specific topics lead to the revealing of individual values and attitudes. Therefore, the establishment and maintenance of loose strategic alliances only demands a basic social and institutional proximity. It is rather important to have complementary areas of knowledge in hand if the consultants must respond appropriately to project tenders on short notice.

Moreover, trust and reputation become crucial for close cooperation in projects such as the policy innovation process. Due to the friendly and long-standing relationship of the consultants in our case study, there was, right from the start, a high degree of transparency about their existing knowledge bases. Trust already existed through previous meetings and business connections, so that an open exchange on topics such as personal values and specialist knowledge was enabled. Another important point determining which consultants were invited to participate in the innovation process was their reputation. Reputation creates security in terms of technical expertise and reliability in cooperation both among the consultancies and in dealing with potential customers. Consultant 1 describes the role of reputation for the innovation process as follows: ‘In my view, reputation is a very important prerequisite for being able to place topics such as sustainability [...] reasonably successfully at all. Because we are already known and appreciated as a trustworthy partner. However, I also see this as a responsibility, as we have the opportunity to spread certain sustainability topics.’ The utilization of strategic alliances for specific projects thus depends heavily on social and institutional proximity. While a fundamentally similar mindset is vital within community networks, the aspects of available

knowledge and reputation become crucial within specific projects like the analyzed policy innovation process.

5.5. Discussion and conclusion

The case study employed in this article illustrated the importance of combinatorial knowledge dynamics in the development of a sustainability policy or, more specifically, in inventing new policy products through collaborating consultancies. It has been shown that the specific actor constellation within this policy innovation process was crucial as it determined the necessary proximities among the actors to effectively assemble a new policy product. Furthermore, the integration of knowledge dynamics corresponds to the inherently knowledge-driven processes of Policy Mobilities. By analyzing knowledge dynamics through the lens of proximities and practices it was shown that overcoming cognitive distances is a central challenge for collaborating actors seeking to invent and presumably also to transfer or implement sustainable policies. Hence, we assume that applying the theoretical and empirical approach of Knowledge Dynamics research bears the potential to gain detailed insights into other Policy Mobilities processes like policy mobilization, localization and transfer as well.

Of course, there are some limitations in this article to be aware of. First, the results of the case study are not generalizable. However, this was not the goal either. Rather, the case study was used to examine the significance of knowledge dynamics in a policy innovation process leading to new and context-specific insights. Moreover, the applied qualitative methodology of Action Research, which facilitated a multi-perspective analysis through the triangulation of several data sources, has led to deep insights and may be useful for other case studies on micro-level dynamics in Policy Mobilities, too. Second, the selection of the case was limited to the author's immediate work environment. The requirement to accompany processes within a consultancy or even a group of collaborating consultancies over a longer period of time makes research difficult, since outside of these organizations it is not transparent whether a new project

and policy ideas are aimed to be developed. Yet, the Action Research approach again proved to be valuable, as it ensured the necessary knowledge about the project contexts, everyday work, and the institutional and business environment conditions of the consultancy the authors of this article were working with. Third, the macro-context of the policy innovation process was only marginally included in this analysis. Instead, the focus was on deep investigations into the dynamics and practices at the micro-level and gave several indications regarding the mutual spatial shaping of local practices and (trans)regional interpersonal connections between consultancies and their clients. Against the background of assemblage thinking in Policy Mobilities, a structured analytical inclusion of the macro-level would be desirable to gain further insights about the spatial shaping of policy innovations and other policy making processes.

Despite these limitations, the case study reveals some useful insights and indications that certainly need further research. In general, the article provides an empirical example to show how knowledge dynamics influence the innovation process of a sustainable policy. It has been empirically proven that knowledge is a crucial component in explaining why certain policies prevail in the competitive policy making arena (Peck 2011). The case study illustrates, among other things, that joint projects and collaborations can be dissolved due to cognitive distances (Boschma 2005). This point seems to be particularly relevant for the creation and enforcement of sustainable policies, as these, due to their multi-disciplinarity and complexity, require cognitive proximity of the actors involved. Moreover, the proximity approach proved to be a useful tool for capturing knowledge dynamics in PM processes. The systematization of the different proximities enabled a structured and multi-perspective analysis of the policy invention process (Boschma 2005; Balland, Boschma, and Frenken 2015). Thus, the lack of cognitive proximity was emphasized as a decisive factor for canceling the innovation process. Due to a lack of clarity and differing understandings of central concepts such as ‘sustainability’ or ‘economy’, practices of combining different knowledge bases remained ineffective (Strambach

and Klement 2012). However, further factors became evident that arose from the lack of cognitive proximity. For example, the actors were unable to agree on a joint policy approach, since the strategies to foster sustainability may necessitate radical or incremental behavioral changes in the target groups. Due to the following delays and the lack of substantial consensus, resource-related factors became more and more urgent. All in all, the proximity approach frames the knowledge dynamics underlying a specific policy innovation process and, analogous to innovation research, reveals supporting and impeding factors during the cooperation (Hansen 2014). Thus, the methodology used in the case study may be considered as a suggestion to examine the role of knowledge, knowledge dynamics and practices in other Policy Mobilities processes as well.

Furthermore, the method of Action Research effectively revealed socio-temporal changes during the innovation process. The case study has shown how the type of knowledge, the way of knowledge sharing and interactive practices among the actors have changed over time. At the beginning of the collaboration, practices focused on establishing and testing social and institutional proximity. For example, current projects and order situations were often discussed, which also contained sensitive information. Through creating transparency of the economic situation, mutual trust was strengthened (Gössling 2004; Torre 2008). The interviews confirmed this impression and highlighted the social and institutional proximity of the actors as the basic requirement for starting projects like the invention of policies at all. Later meetings, however, set the knowledge aspect into focus revealing existing cognitive distances that could only be overcome with significant use of resources and ultimately led to the dissolution of the cooperation.

Accordingly, analyzing micro-level knowledge dynamics positions policy consultants both in specific Policy Mobility processes and in trans-regional policy networks. New insights about knowledge sources, intra-organizational processing methods and the utilization of knowledge for different purposes could be gained. In addition, knowledge dynamics contextualize policy

actors in knowledge networks beyond their own organization by illuminating interactions with other organizations. The case study supports this argument, as the central practices of the examined case study are not only related to the knowledge level (follow and examine debates) but also to inter-organizational aspects of institutional change (influencing the client's mindset), product development through collaboration (co-production) and expansion of capacities (employing strategic partnerships). Hence, investigating knowledge dynamics also contribute to the specification and explanation of the socially complex notion and multi-scalar activities of policy consultants (McCann 2011b).

Summarizing, the case shows the importance of enhanced cognitive as well as social and institutional proximity for the innovation process of policies. The complexity of the sustainability topic, the central role of implicit knowledge for problem solving and the reputation required for placing new topics in existing structures, demands an expert network that offers complementary knowledge and to a certain degree social and institutional proximity. For example, the practice of utilizing strategic alliances takes these challenges into account by trying to reveal and differentiate the various knowledge areas available as well as the value-related conformity of the cooperation partners. Hence, the practice of utilizing strategic partnerships is not only important at the very beginning of a cooperation but may lead to changing configurations of the working group during the innovation process caused by upcoming discrepancies in values or shifts in the importance of certain knowledge areas. Moreover, the article sought to deconstruct how agency and knowledge dynamics determine policy innovation processes, how social and professional environments shape practices and how practices in turn shape the environments they are embedded in. It was shown that the analysis of knowing-in-action – understood as policy knowledge dynamics which become tangible through certain practices – can give answers to these questions as it enables a deep understanding of the policy innovation process and its supporting and impeding factors. The empirical approach in our view seems promising to examine further processes such as the

mobilization, mutation or localization of policies in a context-specific manner. By analyzing the specific nature of policy knowledge and agency future research in this field can contribute to a much more detailed understanding of how and why certain policies survive or are suppressed in a competitive policy market.

6 Regionale Transitionspfade zur Nachhaltigkeit: die Gemeinwohlökonomie als Impuls für institutionelle Veränderungen im deutschen Wirtschaftsförderungssystem

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Submitted to Zeitschrift für Wirtschaftsgeographie on 06.04.2021

Abstract: Changes of institutions and practices are crucial to regional development paths to sustainability (RTPS). The article examines to what extent concepts of alternative economic models offer organizations an institutional framework, promote more sustainable action and how these organizations affect their socio-spatial environment in practice. This is illustrated by using the example of municipal organizations promoting economic development.

Keywords: Economy for the common good; Institutional dynamics; Organizational change; Regional Economic Development; Sustainability transitions

6.1 Einleitung

Aktuell gewinnt das Thema der Transition von Regionen und Städten zu mehr Nachhaltigkeit sowohl in der akademischen Welt als auch in Politik und Gesellschaft an Bedeutung. Institutionelle Veränderungen als Schlüsselement für nachhaltige Transition stehen im Zentrum vieler theoretischer und empirischer Betrachtungen (z.B. Geels 2004; Brown et al. 2013; Wirth et al. 2013; Fünfschilling/Truffer 2014; Raven et al. 2019; Fastenrath/Braun 2018). Welche Mechanismen dabei zu kurzfristigen graduellen Veränderungen auf der Mikro-Ebene führen und wie diese wiederum langfristig transformative Veränderungen auf der Systemebene bewirken können, bleibt dabei jedoch wenig erforscht. Für ein verbessertes Verständnis dieser Mechanismen bietet das Konzept der regionalen Transitionspfade zur Nachhaltigkeit (Regional Transition Paths to Sustainability, RTPS) einen theoretischen Rahmen (Strambach/Pflitsch 2020).

Das Schlüsselargument des Konzeptes ist, dass graduelle und räumlich verteilte institutionelle Veränderungen gleichzeitig stabilisierend und verändernd wirken. Iterative Änderungen in regionalen institutionellen Systemen sind auf diese Art über einen längeren Zeitraum gesehen transformativ und können sowohl zu veränderten Praktiken auf der Mikro-Ebene als auch zu neuen institutionellen Strukturen auf horizontal oder vertikal interdependenten Systemebenen führen. Die institutionelle Veränderbarkeit dieser systemischen Pfadabhängigkeiten wird dabei als Plastizität bezeichnet. Die Etablierung und Rekonfiguration von Organisationen – als temporäre, permanente oder als Netzwerk organisierte Entität – spielt laut Strambach/Pflitsch (2020) für iterative institutionelle Veränderungen eine bestimmende Rolle. So argumentieren sie, dass über neue Organisationen und deren Praktiken auf der Mikro-Ebene zu einem bestimmten Zeitpunkt bestehende Institutionen infragegestellt und gegebenenfalls geändert werden. Welche Mechanismen genau zu diesen Änderungen führen, benötigt jedoch noch weitere Forschung. Insbesondere die Analyse spezifischer Projekte kann dazu beitragen, die transformativen Dynamiken auf regionaler

Ebene zu verstehen (Shove/Walker 2007; Coutard/Rutherford 2010; Hodson/Marvin 2012; Späth/Rohracher 2015; Fastenrath/Braun 2018).

Das Konzept der RTPS bietet einen theoretischen Rahmen, um die Rolle von Akteuren und Prozessen in den institutionellen Systemen, in die sie eingebettet sind, zu erfassen. Gleichzeitig involviert das Konzept den sozio-temporären Kontext eines regionalen Systems. Die bisherige Entwicklung einer Region – also deren Pfadabhängigkeit – ist dabei ebenso wichtig wie deren Einbettung in übergeordnete institutionelle Kontexte und Interdependenzen mit anderen regionalen Systemen (Strambach/Pflitsch 2020).

Vor diesem Hintergrund möchten wir mit dem vorliegenden Artikel einen Beitrag dazu leisten, die transformativen Mechanismen innerhalb eines spezifischen institutionellen Systems zu analysieren. Das betrachtete System ist in unserem Fall die kommunale Wirtschaftsförderung in Deutschland. Wirtschaftsförderungen als Organisationen sind Teil des Verwaltungsapparates und können unterschiedliche Aufgaben und Organisationsformen aufweisen (Röllinghoff 2014). Die grundsätzliche Funktion zur Entwicklung der Wirtschaftsstruktur mit dem Ziel der Schaffung von Arbeitsplätzen und der Verbesserung der Standortbedingungen für Unternehmen, ist jedoch deutschlandweit gleich. Auch wenn es empirisch nicht belegt ist, wird angenommen, dass Wirtschaftsförderungen einen positiven Einfluss auf die regionalen wirtschaftlichen Entwicklungen haben.

Zur Erreichung von Nachhaltigkeitszielen sind neben Unternehmen und Bürgern auch die Kommunen zentrale Akteure. Dabei befindet sich die kommunale Wirtschaftsförderung in einem Zielkonflikt. Auf der einen Seite ist diese Fürsprecherin unternehmerischer Belange und gerade bestrebt, allen Unternehmen möglichst gute Standortbedingungen zu ermöglichen. Im Rahmen eines konventionellen wachstumsorientierten Verständnisses von Wirtschaft bedeutet dies vor allem die Ausweisung von neuen Gewerbeflächen, die Ansiedlung neuer Unternehmen und andere Maßnahmen zur Schaffung geeigneter Rahmenbedingungen für die Wirtschaft. Auf der anderen Seite sind Kommunen aufgefordert, auch hinsichtlich ihrer wirtschaftlichen

Entwicklung die Umsetzung von Nachhaltigkeitszielen zur realisieren. Es stellt sich die Frage, mit welchen Konzepten, Strategien und Maßnahmen sie dies im Bereich der Wirtschaftsförderung umsetzen. Dazu werden derzeit verschiedene alternative ökonomische Ansätze diskutiert, unter anderem das Konzept der Gemeinwohlökonomie (GWÖ), welches im Kern eine Abkehr von rein finanzieller Erfolgsmessung von Organisationen vorschlägt und diese um ökologische und soziale Aspekte erweitert. Auf Nachhaltigkeit ausgerichtete Konzepte werden aktuell in einigen regionalen Wirtschaftsförderungen pilothaft in die Arbeit integriert (z.B. auch Wirtschaftsförderung 4.0) (Dewald/Fromhold-Eisebith 2020). Der Artikel greift ein solches Pilotvorhaben auf, in dem das Konzept der Gemeinwohlökonomie in die Arbeitsweise einer kommunalen Wirtschaftsförderungsgesellschaft integriert wird.

Anhand des Beispiels der Wirtschaftsförderungsgesellschaft der Stadt Bornheim, die durch die Erstellung eines Gemeinwohlberichts eigene Praktiken reflektiert und weiterentwickelt hat, sollen so Mechanismen der graduellen institutionellen Veränderungen herausgestellt werden. Wir widmen uns in diesem Artikel demnach folgenden Forschungsfragen, die eng miteinander verwoben sind:

1. Wie nutzt die kommunale Wirtschaftsförderungsinstitution in Bornheim die Plastizität der regionalen Pfadabhängigkeit, um graduelle institutionelle Änderungen herbeizuführen, die wiederum nachhaltigere Praktiken befördern? Was sind dabei unterstützende und hindernde Faktoren?
2. Welche Impulse können kommunale Wirtschaftsförderungsorganisationen damit für die Diffusion alternativer Wirtschaftsformen setzen, sowohl in die Privatwirtschaft als auch den öffentlichen Sektor?

In der Forschung zu Geographien nachhaltiger Transitionen wurde bereits vielfach die Wichtigkeit regionaler institutioneller Settings und deren Dynamiken herausgestellt (z.B.

Coenen et al. 2010, 2012; Binz et al. 2012; Späth/Rohracher 2010, 2012; Hansen/Coenen 2015; Hodson et al. 2017). Die Rolle von Akteuren und deren Praktiken für De-Institutionalisierung und Institutionalisierung auf Mikro-Ebene stellt dabei einen zentralen Zugang für die Analyse von graduellen institutionellen Veränderungen dar, die RTPS determinieren (Brown et al. 2013; Fischer/Newig 2016; Loorbach et al. 2017).

Der Beitrag unseres Artikels liegt somit in der empirischen Anwendung des Konzeptes der RTPS. Im Speziellen werden für ein spezifisches Projekt auf Mikro-Ebene, Mechanismen der institutionellen Veränderung herausgestellt. Gleichzeitig werden mit der Darstellung des Pilotprojektes der Gemeinwohlbilanzierung einer Wirtschaftsförderungsgesellschaft in Bornheim mögliche Auswirkungen auf interdependente Systemebenen in der Wirtschaftsförderung diskutiert.

Der Artikel ist in fünf Sektionen unterteilt. Sektion zwei legt den sozio-temporären Kontext des deutschen Wirtschaftsförderungssystems dar und diskutiert die Wirkmächtigkeit bisheriger Konzepte zur Förderung nachhaltigen Wirtschaftens. Wir argumentieren, dass bestehende, hauptsächlich auf die Entkopplung von wirtschaftlichem Wachstum und Ressourcenverbrauch abzielende Ansätze, nur unzureichend Nachhaltigkeitsimpulse in die Wirtschaftsförderungspraxis setzen. Sektion drei diskutiert inwiefern das Konzept der Gemeinwohlökonomie als alternatives Wirtschaftsmodell einen institutionellen Orientierungsrahmen für Wirtschaftsförderungsorganisationen bieten könnte. Nachdem in Sektion vier die genutzte Methodik dargelegt wurde, zeichnet Sektion fünf den Prozess der Erstellung eines Gemeinwohlberichtes in der WFG Bornheim nach. Dadurch werden die Rollen von involvierten Akteuren sowie durch den Erstellungsprozess veränderte Praktiken und regionale institutionelle Auswirkungen offengelegt. Auf dieser Basis wird deutlich, dass die Berichterstellung als wirksamer Mechanismus gradueller institutioneller Veränderung auf Mikro-Ebene verstanden werden kann. Zudem diskutieren wir die Stellung des Bornheim-Projekts im Kontext des Systems Wirtschaftsförderung und erörtern die Rolle der

Wirtschaftsförderungen als Triebkraft regionaler Nachhaltigkeitstransitionen. Sektion sechs schließt mit einem Rückbezug des Fallbeispiels auf die theoretische Rahmung und zeigt zukünftige Forschungsmöglichkeiten zu RTPS auf.

6.2 Das Wirtschaftsförderungssystem in Deutschland

Im Folgenden wird zunächst der Kontext der kommunalen Wirtschaftsförderung in Deutschland anhand der Aufgaben, Organisationsformen, dem rechtlichen Rahmen und Phasen der Entwicklung näher beschrieben. Der Fokus liegt dabei auf der kommunalen Wirtschaftsförderung im deutschen Verwaltungssystem. Mit „kommunal“ erfolgt dabei eine Fokussierung, da über die kommunale Ebene hinausgehende Organisationen und Formen der Wirtschaftsförderung in unserer Analyse nicht berücksichtigt werden, etwa die staatliche oder europäische Ebene. Eine genaue Anzahl der kommunalen Wirtschaftsförderungsorganisationen ist durch den freiwilligen Charakter nicht fixiert. Allerdings umfasst das System bei circa 400 Landkreisen und Städten ab 20.000 Einwohnern in Deutschland schätzungsweise 400-500 Organisationen.

Kommunale Wirtschaftsförderung strebt nach Korn/van der Beek (2018, 1136) die „Sicherung und Erweiterung des regionalen Arbeitsplatzangebots, die Entwicklung einer zukunftsfähigen Wirtschaftsstruktur sowie die Pflege der Standortbedingungen“ an. Ähnlich definiert auch der Deutsche Städtetag (2018) die wichtigsten Ziele der kommunalen Wirtschaftsförderung, fügt den drei vorgenannten Zielen jedoch noch explizit die Sicherung und Stärkung der Finanzkraft der Kommunen hinzu (Deutscher Städtetag 2018). Zur Erreichung der Ziele werden vom Städtetag die folgenden sogenannten Aktionsfelder beschrieben:

- Sicherung und Entwicklung der wirtschaftsnahen Infrastruktur (inkl. Flächen-, Forschungs- und Telekommunikationsinfrastruktur)
- Sicherung und Entwicklung des Unternehmensbestandes

- Förderung von Neugründungen
- Akquisition von Ansiedlungen
- Innovations- und Wissenstransfer, insbesondere Verbesserung der Innovationskraft bei kleineren und mittleren Unternehmen
- Clustermanagement, branchenorientierte Netzwerkpflge und Innovationstransfermanagement
- Schaffung und Erhalt von Arbeitsplätzen/Fachkräftesicherung
- Zukunftssichernde Projekte der Stadtentwicklung
- Standortmarketing
- Sicherung des Einzelhandelsstandortes (Innenstädte und Stadtteilzentren)
- politische und öffentliche Willensbildung
- Erarbeitung und Definition von Standortprofilen und Branchenkonzepten

Im Hinblick auf wirtschaftliche Transition bzw. RTPS fällt damit auf, dass Nachhaltigkeitsthemen zumindest in der Auflistung des Städtetages nicht explizit genannt werden. Auch in Untersuchungen zum Aufgabenspektrum der Wirtschaftsförderung tauchen diese, wenn überhaupt, auf den hinteren Rängen auf. In einer Befragung (Lempp/Korn 2015) erachteten beispielsweise nur 10 Prozent der befragten Wirtschaftsförderer den „Schutz der Umwelt“ als sehr wichtiges Ziel, womit hier ein konkretes Nachhaltigkeitsziel Rang 17 von 18 abgefragten Zielen der Wirtschaftsförderung belegt. Eine ähnlich geringe Bedeutung erbrachte eine Befragung von Zwicker-Schwarm (2013). Gefragt nach den drei wichtigsten Themen der Wirtschaftsförderung erhielt Nachhaltiges Wirtschaften drei Nennungen, gegenüber der Vermittlung von Gewerbe- und Industrieflächen (82 Nennungen), der Entwicklung von Gewerbe- und Industrieflächen (75 Nennungen), dem Standortmarketing (40 Nennungen) und der Einzelhandelsentwicklung (32 Nennungen) somit deutlich abgeschlagen auf Rang 15 von 20 abgefragten Themen. Dies kann als Hinweis für einen bestehenden Zielkonflikt zwischen

einer insbesondere im ökologischen Sinne nachhaltig ausgerichteten Wirtschaftsförderung und ihren klassischen Aufgabenfeldern gesehen werden.

Mit den oben genannten Aktionsfeldern wird die Aufgabenvielfalt der Wirtschaftsförderung deutlich. Operativ versteht sich die Wirtschaftsförderung als Ansprechpartner für die Wirtschaft für ein breites Spektrum an Belangen, so dass ihre Aufgaben in der Praxis „von der Parkplatzproblematik des Bäckers nebenan bis hin zur maßgeblichen Beteiligung an industrie- oder clusterpolitischen Großvorhaben, oftmals mit weiteren Verästelungen in arbeitsmarkt- und bildungspolitische Bereiche hinein“ (Röllinghoff 2014, 338) reichen. Diese Aufgabenvielfalt bedingt, dass die Wirtschaftsförderung – im Gegensatz zu vielen klassischen Verwaltungsaufgaben – häufig an der Schnittstelle zu Organisationen und Akteuren außerhalb der Verwaltung tätig ist. Damit angesprochen ist die Frage der Organisationsformen der Wirtschaftsförderung. Kommunale Wirtschaftsförderung ist vielerorts als Amt, Stabstelle oder Referat in die Verwaltung integriert. Daneben wird kommunale Wirtschaftsförderung jedoch auch in privater Trägerschaft, beispielsweise als GmbH betrieben. Auf kommunaler Ebene, somit in den Gemeinden, den kreisangehörigen und kreisfreien Städten als auch den Landkreisen, finden sich beide Organisationsformen, sowohl die Amtslösung als auch die private Trägerschaft (Korn/van der Beek 2018; Röllinghoff 2014), mit jeweils unterschiedlichen Vor- und Nachteilen (Lahner 2019). Kleinere Städte bzw. Gemeinden verfügen in der Regel über die Ämterlösung. In kleineren Gemeinden (> 20.000 Einwohner) sind die Aufgaben häufig in den Bereichen Liegenschaften oder Stadtplanung verortet, ohne Ausweisung einer eigenen Stabstelle oder anderen Verwaltungseinheit für Wirtschaftsförderung. Diese organisatorische als auch die oben aufgezeigte inhaltliche Vielfalt sind auf die rechtliche Unbestimmtheit der Aufgabe Wirtschaftsförderung zurückzuführen. Denn Wirtschaftsförderung ist gesetzlich nicht als Pflichtaufgabe der Kommunen festgelegt. Rechtlich ist sie lediglich durch die im Grundgesetz verankerte Selbstverwaltungsgarantie der Gemeinden begründet und stellt eine freiwillige Selbstverwaltungsaufgabe dar (Lahner 2019).

Ihr Charakter als freiwillige Aufgabe führt dazu, dass Wirtschaftsförderung einem erhöhten Legitimationsdruck ausgesetzt ist, gerade in Zeiten unter finanziellem Druck stehender Kommunen. Des Weiteren führt die Unbestimmtheit zu einer großen Aufgabenvielfalt, sodass mitunter gar von einer „Allzuständigkeit“ der kommunalen Wirtschaftsförderung gesprochen wird (Röllinghoff 2014) bei gleichzeitig enger Ressourcenausstattung. Der Vergleich von Befragungen von Wirtschaftsförderern (Zwicker-Schwarm 2013; Lempp/Korn 2018) zeigt dabei, dass sich das Aufgabenspektrum der Wirtschaftsförderung immer weiter ausdifferenziert hat. Entsprechend wachsen die Anforderungen an Wirtschaftsförderer, werden doch vielfältigste Aufgaben vom Verwaltungslotsen, über den Standortentwickler, den Netzwerker, den Innovationstreiber, die Imagewerbung bis zum „Troubleshooter“ für Belange der Unternehmen und noch einige mehr zum Profil des Wirtschaftsförderers gezählt (Deutscher Städtetag 2018).

Die zuvor aufgezeigten Hauptaufgaben der Wirtschaftsförderung sind jedoch nicht statisch zu sehen. Verschiedene Epochen der wirtschaftsräumlichen Entwicklung der vergangenen Jahrzehnte gehen einher mit unterschiedlichen Aufgabenzuschnitten der Wirtschaftsförderung. Grob untergliedern lassen sich seit der Mitte des letzten Jahrhunderts fünf Phasen der kommunalen Wirtschaftsförderung im Spiegel der wirtschaftsräumlichen Dynamik. Zwar fehlt bisher eine detaillierte Zusammenschau der Entwicklungsphasen vor dem Hintergrund theoretischer Zugänge, den jeweiligen Aufgabenfeldern und daraus hervorgehender strategischer Konzeptionen über einen langen Zeitraum. Dennoch lassen sich anhand einzelner wissenschaftlicher Beiträge und Handbücher (Dieckmann/König 1994; Gärtner et al. 2006; Brandt 2014; Lahner 2019; Dewald/Fromhold-Eisebith 2020), beginnend ab der Mitte des letzten Jahrhunderts, überblicksartig folgende fünf Phasen identifizieren (vgl. Table 6.1).

6.2 Das Wirtschaftsförderungssystem in Deutschland

Phasen (grob)	Wirtschaftlicher Kontext	Primäre Aufgaben	Primäre Organisationsformen
Phase 1: 1945 bis 1970er Jahre	Wiederaufbau und Entwicklung des fordistischen Produktionsregimes	<ul style="list-style-type: none"> Wiederaufbau der Wirtschaft Gewerbeflächenentwicklung 	eingegliedert, d.h. noch ohne eigenständigen Zuschnitt; Teil anderer Verwaltungsstellen
Phase 2: 1970er bis 2000er Jahre	Entfaltung und Krise des Fordismus; Wirtschaftskrisen der 70er Jahre; Globalisierung	<ul style="list-style-type: none"> Erstmalig unter dem Begriff der Wirtschaftsförderung als aktive kommunale Strukturpolitik und Gestaltung Gezielte Anwerbung von (Groß-) Investoren, auch aus dem Ausland Flächenrevitalisierung Mit Beginn der Massenarbeitslosigkeit Etablierung der Beschäftigungsförderung als Betätigungsfeld 	überwiegend Wirtschaftsförderung als Ämterlösung; zunehmend privatwirtschaftliche Organisationsformen; ab 1990er Jahre Aufbau der kommunalen Wirtschaftsförderung in Ostdeutschland
Phase 3: 2000er bis 2010er Jahre	Wandel zur Wissens- und Innovations- gesellschaft	<ul style="list-style-type: none"> Ab 1990er Jahren auch Förderung von Innovation & Vernetzung und deren operative Implementierung in Netzwerk- und Clustermanagement Ab 2000er Jahren zunehmender Fokus auf Fachkräftethematik und Technologiethemen (erste Impulse aus der Nachhaltigkeitsdebatte) Zunehmender regionaler Fokus (Kooperation) im Rahmen einer neoliberalen Wertorientierung mit der Förderung von Leuchttürmen („Stärken stärken“) Wachstumsorientierung und Standortwettbewerb und -marketing der Regionen bzw. Standorte 	Professionalisierung und Ausdifferenzierung der kommunalen Wirtschaftsförderung; zunehmende institutionelle Vielfalt der Wirtschaftsförderung; interkommunale Organisationsformen (regionale Zusammenschlüsse)
Phase 4: 2010er bis 2020er Jahre	Folgen der Finanzkrise; Digitalisierung und Fachkräftethematik; „Große Transformation“	<ul style="list-style-type: none"> Abkehr von Clusterförderung Rückbesinnung auf Bestandspflege statt Außenanwerbung auch als Folge von Wachstumsgrenzen (zunehmender Fachkräfte- und Gewerbeflächenmangel) Digitalisierungsinfrastruktur (Breitband) Zunehmende Bedeutung von Nachhaltigkeitsthemen 	
Phase 5: Ab 2020er Jahre (Post-) Corona- Folgen	Corona-Krise; Resilienz, Nachhaltigkeit	<ul style="list-style-type: none"> Von „Kür-“ zurück zu Pflichtaufgaben Wiederaufbau der durch Corona besonders betroffenen Bereiche der Wirtschaft, insb. Handeln und Gastgewerbe Damit einhergehender Bedeutungsgewinn von Fördermittel- und Gründungsberatung Verstärkter Wandel der Arbeitswelt, insb. im Hinblick auf Home-Office und dritte Arbeitsorte, Damit neue Gestaltungserfordernisse als auch -möglichkeiten für unterschiedliche Standorttypen Funktionswandel der Innenstädte mit verstärkter Krise des stationären Einzelhandels 	

Table 6.1: Phasen der kommunalen Wirtschaftsförderung in Deutschland (Quelle: Eigene Zusammenstellung)

Dabei ist festzuhalten, dass jede neue Phase zumeist keine Abkehr von den Strategien und Aufgaben der Vorphase bedeutet, sondern jeweils neue hinzugefügt hat. So ist das Aufgabenspektrum stetig gewachsen, während ursprüngliche Aufgaben wie die Entwicklung von Gewerbeflächen nach wie vor zu den Hauptaufgaben gezählt werden. Dies betrifft gleichermaßen die in Phase 3 mit der Entwicklung zur Wissensgesellschaft aufkommenden Aufgaben der innovationsorientierten und netzwerkorientierten Unternehmensförderung. Standortwettbewerb, Wachstumsorientierung und Technologieorientierung bleiben wesentliche Leitplanken der kommunalen Wirtschaftsförderung. Auf Nachhaltigkeit und Resilienz fokussierte Strategien der Phase 4 erweitern schrittweise den konzeptionellen Orientierungsrahmen. Diese Pluralität verschiedener Ansätze und Werteorientierungen dürfte zu einer Situation führen, in der viele Einrichtungen der Wirtschaftsförderung derzeit ihre strategischen Ziele überdenken.

Zusätzlich verstärkt wird dies durch die gegenwärtige Corona-Pandemie. Zwar handelt es sich hier nur um eine erste Einschätzung, jedoch lassen zahlreiche Kontakte zu Wirtschaftsförderern erkennen, dass derzeit noch Unsicherheit über die Folgen der Corona-Pandemie für ihr Aufgabenfeld existiert. Dabei öffnet sich ein Spannungsfeld von den klassischen Aufgaben einer wachstumsorientierten Wirtschaftsförderung als möglichst rasche Antwort auf die Corona-Krise einerseits bis hin zu einer Umorientierung der Wirtschaftsförderung im Hinblick auf Resilienz und Nachhaltigkeit. Die Themen Nachhaltigkeit und Resilienz beeinflussten zwar bereits vor der Corona-Pandemie, insbesondere in Phase 4, die Arbeit der Wirtschaftsförderung. Jedoch konnten sich diese bislang nicht als Kernaufgaben etablieren. Die durch die Corona-Pandemie beförderte globale Wirtschaftskrise legt dabei erneut den Handlungsbedarf für einen Paradigmenwechsel zu mehr Nachhaltigkeit offen. Damit stellt sich auch die Frage, welche Wirkung frühere Ansätze und Bestrebungen zur Implementierung von Nachhaltigkeitsthemen in die Arbeit der Wirtschaftsförderung hatten.

Denn die Herausforderungen, die durch begrenzte Ressourcen und Klimawandel entstehen, werden bereits seit vielen Jahren von der internationalen bis zur lokalen Politik aufgegriffen (Meadows et al. 2004; Bridge 2009). RTPS untersuchen in diesem Zusammenhang die diversen regional spezifischen Wege zur Nachhaltigkeit, auf denen den immer drängender werdenden sozialen, ökologischen und wirtschaftlichen Problemen begegnet wird. Auch im Kontext des deutschen Wirtschaftsförderungssystems haben Nachhaltigkeitsthemen in den vergangenen Jahren an Bedeutung gewonnen, auch wenn diese, wie oben dargestellt, nicht zu den Kernaufgaben der Wirtschaftsförderung gezählt werden. Bisherige Konzeptionen von Nachhaltigkeit wie die Sustainable Development Goals der UN (UN 2015) oder das Konzept des Green Growth der OECD (OECD 2009, 2014) zeichnet dabei aus, dass diese keinen Widerspruch zwischen Wirtschaftswachstum und sinkendem Ressourcenverbrauch annehmen. Ganz im Gegenteil verfolgen diese den Weg zu mehr Nachhaltigkeit im Rahmen einer Wachstumsstrategie. Dies schlägt sich auch in zahlreichen Initiativen auf supranationaler Ebene der EU („Strategie 2020“, Europäische Kommission 2010; „Green Deal“, Europäische Kommission 2019) und auf nationaler Ebene in Deutschland nieder. Solche Ansätze zur Nachhaltigkeit im Rahmen eines wachstumsorientierten Wirtschaftsmodells konnten umstandslos in die Arbeit der Wirtschaftsförderung implementiert werden, ohne dort einen grundlegenden Wandel zu befördern. Mit der Förderung von Branchennetzwerken zu Themen wie Ressourcen- und Energieeffizienz oder Erneuerbaren Energien, Konzepten zur Förderung von Elektromobilität und der Auflage entsprechender Förderprogramme kamen in den letzten Jahren zunehmend solche Instrumente zur Anwendung, die passfähig zu einer „Green Growth“-Strategie sind. Es ist genau diese Form „grünen Wirtschaftens“, die auch Eingang in Strategiepapiere der Verbände der kommunalen Wirtschaftsförderung gefunden hat (bspw. Deutscher Städtetag 2018). Diese zeichnet sich neben der Technologieorientierung durch die Passfähigkeit zum konventionellen Wachstumsparadigma aus.

Insbesondere der Degrowth-Diskurs zeigt jedoch Grenzen der Annahme auf, dass Wirtschaftswachstum und Ressourcenverbrauch voneinander entkoppelt werden können. Es sind vor allem drei Gründe, wieso Wachstum als Grundvoraussetzung für positive wirtschaftliche Entwicklungen kritischer hinterfragt werden muss. Erstens finden sich trotz aller Bemühungen, den Ressourcenverbrauch zu senken, weder international noch in den vielfältigen nationalen Kontexten, Beispiele für eine erfolgreiche Entkopplung von Wachstum und Verbrauch (Giljum/Lutter 2015; Ward et al. 2016). Zweitens werden durch Effizienzsteigerungen gesparte Ressourcen für andere Aktivitäten genutzt, sodass in der Summe keine Einsparung oder sogar mehr Ressourcenverbrauch entsteht (Rebound-Effekt). Drittens führen digitale Lösungen zu neuen sozialen und ökologischen Problemen – z.B. Datenschutz/Datensicherheit und die Förderung seltener Erden – deren Auswirkungen nur schwer mit potenziellen Effizienzgewinnen verrechnet werden können (Kerschner et al. 2018). Die Pfade zur Nachhaltigkeit müssen daher deutlich differenziertere Kausalitäten und Interdependenzen zwischen verschiedenen Akteuren und Systemen umfassen, die über einen linearen Ansatz wie die Entkopplung von wirtschaftlichem Wachstum und Ressourcenverbrauch hinaus gehen.

Auch Wirtschaftsförderungen stehen also vor der Herausforderung, nicht nur selbst nachhaltigere Praktiken zu integrieren, sondern möglichst auch Unternehmen in die Lage zu versetzen, nachhaltiger zu agieren. Wie zuvor bereits beschrieben, sind kommunale Wirtschaftsförderungen prinzipiell in der Lage, eigenständig ihre Aufgabenfelder zu definieren. Folglich könnten so die eigenen Praktiken einer differenzierten nachhaltigen Entwicklung angepasst werden. Jedoch benötigt es, der Degrowth-Argumentation folgend, ein verändertes Verständnis erfolgreichen Wirtschaftens, welches Gemeinwohlorientierung über die individuelle Profitmaximierung stellt. Dabei wird Wachstum nicht grundsätzlich abgelehnt. Vielmehr rückt die Frage ins Zentrum, welche Wirtschaft wachsen und gefördert werden sollte. Konzepte, die auf die Entkopplung von Wachstum und Ressourcenverbrauch zielen, bieten

jedoch auf diese Frage keine differenzierte Antwort. Ihnen fehlt insbesondere ein angepasster institutioneller Orientierungsrahmen (z.B. veränderte Werte, Verständnisse, praktische Ansätze), um Wirtschaftsförderungen bei der Umsetzung und der Förderung nachhaltigerer wirtschaftlicher Praktiken zu unterstützen. Eine nähere Auseinandersetzung mit alternativen Wirtschaftsformen und -modellen ist daher dringend notwendig, um diese besser zu „verstehen und hinsichtlich deren transformativem Potenzial bewerten zu können“ (Schulz et al. 2018, 19). Ein Beispiel für ein alternatives Wirtschaftsmodell, das durch ein erweitertes bzw. anderes Verständnis von Wirtschaft als Orientierungsrahmen für Wirtschaftsförderungen dienen könnte, ist die Gemeinwohlökonomie. Das Konzept zielt nicht nur auf institutionelle, sondern auch praktische Veränderungen in der täglichen Arbeit von Organisationen ab und könnte so auch kommunalen Wirtschaftsförderungen Impulse geben, Veränderungen zu mehr Nachhaltigkeit zu initiieren.

6.3 Die Gemeinwohlökonomie als Orientierungsrahmen zur nachhaltigen Organisationsentwicklung

Innerhalb des breiten Spektrums an wachstumskritischen Ansätzen hat die Gemeinwohlökonomie (GWÖ) in den letzten Jahren eine besondere Dynamik entfacht (Maset-Llaudes et al 2019; Stumpf/Sommer 2019; Dewald/Rother 2020). Diese fordert die Realisierung eines ethischen Wirtschaftsmodells, das den Menschen und dessen Lebensgrundlagen in den Mittelpunkt des Wirtschaftens stellt (vgl. www.ecogood.org.de). Dabei strebt sie einen maßvollen Umgang mit Ressourcen und eine Vermeidung großer Ungleichheiten bei Einkommen, Vermögen und Macht an. Ziel ist es, den Umweltverbrauch innerhalb der Regenerationsfähigkeit natürlicher Ökosysteme und der planetaren Grenzen zu halten und den künftigen Generationen gleiche Lebenschancen wie den heutigen zu bieten. Strategischer Kern der GWÖ ist eine Umorientierung in der Art und Weise, wie wirtschaftlicher Erfolg bemessen wird (Maset-Llaudes et al 2019). Die GWÖ tritt einer Ökonomisierung aller

Lebensbereiche entgegen und hinterfragt kritisch die gängigen Instrumente und Indikatoren zur Bemessung ökonomischen Erfolgs, etwa das Bruttosozialprodukt auf der nationalen Ebene, den Haushaltsplan auf der kommunalen Ebene und die Finanzbilanz auf der Ebene des einzelnen Unternehmens (Stumpf/Sommer 2019). Gemäß der Vision der GWÖ strebt die Wirtschaft nicht mehr nach maximalem Profit, sondern nach dem Gemeinwohl, womit eine Rückbesinnung auf Verfassungswerte, vor allem auf die Sozialbindung des Eigentums (Art. 14 (2) Grundgesetz) und auf die Gemeinwohlbindung des Wirtschaftens vollzogen wird.

Die GWÖ-Bewegung entstand ab 2010 ausgehend von Österreich, der Schweiz und Deutschland und wurde inhaltlich maßgeblich durch die Arbeiten von Christian Felber (2018) geprägt, der gemeinsam mit Mitstreitern um das Jahr 2010 auch das Instrument der Gemeinwohlmatrix entwickelt hat. Organisatorisches Rückgrat der dezentralen Organisation sind derzeit über 165 Regionalgruppen (web.ecogood.org), deren Großteil in europäischen Ländern ansässig sind. Erste Regionalgruppen wurden auch auf anderen Kontinenten gegründet. In sogenannten Akteur*innen-Kreisen (AKs) werden inhaltliche Themen der GWÖ bearbeitet. Neben einem AK zur Weiterentwicklung des Bilanzierungsinstruments gibt es beispielsweise den AK Wissenschaft und Forschung oder AK Gemeinden, die dazu dienen, Ideen und Arbeitsweisen der GWÖ in dem jeweiligen Adressatenkreis zu verbreiten bzw. für diese Zielgruppen spezifische Strategien zu entwickeln und Projekte anzustoßen. Eine zentrale Akteursgruppe in der Bewegung stellen darüber hinaus Unternehmen dar, wobei zu Beginn des Jahres 2021 ca. 2000 Unternehmen als Unterstützer der GWÖ genannt werden (web.ecogood.org).

Den Kommunen kommen in der GWÖ gleich mehrere Rollen zu (Dewald/Rother 2020). In ihrer Rolle als Vorbild setzen sie die Werte der GWÖ im eigenen Handeln um. Mit einer Gemeinwohlbilanz können die Eigenbetriebe und andere Wirtschaftsbetriebe mit kommunaler Beteiligung oder im kommunalen Besitz insbesondere hinsichtlich der Umsetzung ökologischer und sozialer Prinzipien überprüft werden. Für die Umsetzung der GWÖ in Gemeinden wurde

ein eigenes Handbuch und eine eigene Variante der Gemeinwohlbilanz entwickelt (Arbeitsbuch Gemeinden V2). Perspektivisch könnten Gemeinden mit einer GWÖ-Bilanz von den übergeordneten administrativen Ebenen honoriert werden, in dem diese bspw. bevorzugt Zugang zu Fördermitteln erhalten. Als zweite Rolle neben der Umsetzung in der eigenen Verwaltung kommt ihr die Rolle als Förderin zu. Die Gemeinde kann über ihre Kommunikationswege die GWÖ bekannt machen und diese unterstützen, indem sie beispielsweise Informationsveranstaltungen anbietet und interessierte Akteure zusammenbringt und somit ihre Ressourcen zur Verbreitung der GWÖ zur Verfügung stellt. Drittens kann die Gemeinde als Hüterin der GWÖ dafür sorgen, dass die Werte der GWÖ im Handlungsraum der Gemeinde Anwendung finden. Beispielsweise kann die Gemeinde darauf achten, dass ökologische und soziale Prinzipien bei der Beschaffung und Auftragsvergabe Anwendung finden. Betriebe mit einer eigenen Gemeinwohlbilanz könnten dabei bevorzugt werden, so dass immer mehr Unternehmen Anreize vorfinden, ebenfalls eine Gemeinwohlbilanzierung anzustreben. So wird deutlich, dass der Gemeinde eine zentrale und aktive Rolle in der Diffusion der GWÖ zukommen kann.

Um die umwelt- und sozialschädlichen Folgen einer einseitig auf Profitorientierung ausgerichteten Wirtschaft zu vermeiden, sieht die GWÖ vor, Unternehmen und andere Wirtschaftsakteure danach zu bewerten, inwieweit sie sich dem Gemeinwohl verpflichtet fühlen und wie viel sie für das Gemeinwohl tun (Felber 2018). Das zentrale Werkzeug der GWÖ ist die Gemeinwohlbilanz, in der das bilanzierende Unternehmen bzw. andere Organisationen wie Kommunen oder Bildungseinrichtungen die Einhaltung und Förderung von Werten wie Menschenwürde, Solidarität, soziale Gerechtigkeit, ökologische Nachhaltigkeit, Mitbestimmung und Transparenz einer Bewertung unterziehen kann. Es wird analysiert, wie diese Werte im unternehmerischen Handeln umgesetzt werden. Dabei wird nach den wichtigsten Berührungsgruppen (Kunden, Mitarbeitende, Lieferanten, Finanzpartner und das

gesellschaftliche Umfeld) unterschieden. Zusammengefasst ist dies in der Gemeinwohlmatrix (vgl. Figure 6.1).

WERT				
BERÜHRUNGSGRUPPE	MENSCHENWÜRDE	SOLIDARITÄT UND GERECHTIGKEIT	ÖKOLOGISCHE NACHHALTIGKEIT	TRANSPARENZ UND MITENTSCHEIDUNG
A: LIEFERANT*INNEN	A1 Menschenwürde in der Zulieferkette	A2 Solidarität und Gerechtigkeit in der Zulieferkette	A3 Ökologische Nachhaltigkeit in der Zulieferkette	A4 Transparenz und Mitentscheidung in der Zulieferkette
B: EIGENTÜMER*INNEN & FINANZ-PARTNER*INNEN	B1 Ethische Haltung im Umgang mit Geldmitteln	B2 Soziale Haltung im Umgang mit Geldmitteln	B3 Sozial-ökologische Investitionen und Mittelverwendung	B4 Eigentum und Mitentscheidung
C: MITARBEITENDE	C1 Menschenwürde am Arbeitsplatz	C2 Ausgestaltung der Arbeitsverträge	C3 Förderung des ökologischen Verhaltens der Mitarbeitenden	C4 Innerbetriebliche Mitentscheidung und Transparenz
D: KUND*INNEN & MITUNTERNEHMEN	D1 Ethische Kund*innenbeziehungen	D2 Kooperation und Solidarität mit Mitunternehmen	D3 Ökologische Auswirkung durch Nutzung und Entsorgung von Produkten und Dienstleistungen	D4 Kund*innen-Mitwirkung und Produkttransparenz
E: GESELLSCHAFTLICHES UMFELD	E1 Sinn und gesellschaftliche Wirkung der Produkte und Dienstleistungen	E2 Beitrag zum Gemeinwesen	E3 Reduktion ökologischer Auswirkungen	E4 Transparenz und gesellschaftliche Mitentscheidung

Figure 6.1: Gemeinwohlmatrix 5.0 (Quelle: Arbeitsbuch zur Gemeinwohlbilanz 5.0, Seite 8)

Auf der horizontalen Ebene bildet die Gemeinwohlmatrix die oben bereits genannten zentralen Werte der GWÖ ab. Auf der vertikalen Ebene werden die verschiedenen Berührungsgruppen aufgeführt, die von den Zulieferern, den Besitzern bzw. Anteilseignern, über die Arbeitnehmer, die Kunden, bis hin zu Akteuren aus der Umgebung der zu bilanzierenden Organisation reichen. Auf Basis dieser Matrix erfolgt die Bilanzierung einer Organisation in drei Schritten. Zunächst wird durch die Organisation mit Unterstützung zertifizierter Gemeinwohlberater und anhand der Gemeinwohlmatrix ein Gemeinwohlbericht erstellt. Jedes der in Abbildung 6.1 dargestellten Felder wird detailliert analysiert und nach einem Punkteschema bewertet. Der Bericht wird im Anschluss externen Gutachtern vorgelegt. Aus dem Bericht und dem Prüfergebnis setzt sich die Gemeinwohlbilanz zusammen, die eine insgesamt erreichte Punktzahl beinhaltet. Durch die Wiederholung in regelmäßigen Abständen

soll erreicht werden, dass kontinuierlich die Maßnahmen und Umsetzungsschritte der Organisation bewertet werden können. So stellt die Gemeinwohlbilanz ein Instrument der Organisationsentwicklung dar. Mittlerweile haben über 700 Organisationen – darunter zumeist Unternehmen, jedoch auch Bildungseinrichtungen, Kommunale Betriebe oder Stadtwerke – eine Gemeinwohlbilanz erstellt. Aus dem breiten Spektrum alternativer Ansätze, die derzeit im Diskurs zur Wachstumskritik diskutiert werden, hebt sich die GWÖ damit durch ihren Anwendungsbezug hervor.

6.4 Methodik

Als erste Wirtschaftsförderungsorganisation in Deutschland beauftragte die Wirtschaftsförderungs- und Entwicklungsgesellschaft Bornheim (WFG Bornheim) im Sommer 2020 eine Beratungsfirma zur Prozessbegleitung der Erstellung eines Gemeinwohlberichtes. Das Projekt wurde im November 2020 abgeschlossen, sodass zur Datenerhebung sowohl teilnehmende Beobachtungen und Dokumentenanalyse als auch Interviews mit drei zentralen Akteuren der Wirtschaftsförderung und der beauftragten Kommunalberatung realisiert werden konnten. Durch langjährige Mitarbeit in der Beratungsfirma zu anderen Projekten der regionalen Wirtschaftsförderung, bestand zwischen den Autoren dieses Artikels und den beratenden Akteuren von Anfang an sowohl das notwendige Vertrauen als auch die Sicht des Beraters, um die Empirie möglichst praxisnah und unter Einbezug von sonst nur schwer zugänglichem Wissen umsetzen zu können (Prince 2012). Dank der guten Reputation der Beratungsfirma innerhalb der Wirtschaftsförderungs-Community war es zugleich möglich, mit dem Bornheimer Wirtschaftsförderer detailliert, offen und sehr persönlich über den Projektverlauf und seine Auswirkungen auf das eigene Handeln und Denken zu sprechen.

Zur Strukturierung unserer Empirie nutzen wir den Action Research Ansatz. Dies gründet zum einen darin, dass durch die intensive Einbindung der Autoren in die alltägliche Arbeit der Beratungsfirma ein reflektierter Umgang mit Datenerhebung und Analyse realisiert werden

kann (Elg et al. 2020). Zum anderen bietet der Ansatz durch die zyklische Herangehensweise in Form von Planung, Handeln und Beobachten und Reflektieren (Lewin 1946) die notwendige Flexibilität, um auch während des Forschungsprozesses methodische Anpassungen durchzuführen. Ziel der Methodik ist, vereinfacht gesagt, die Erforschung der Verhältnisse von Theorie und angewandter Praxis (Elg et al. 2020; Eden/Ackermann 2018; Coghlan 2019). Durch die Erhebung relevanter Daten und der vertieften Kontextualisierung von Fallbeispielen kann dieses Ziel erreicht werden (vgl. Table 6.2).

1. Action Research Zyklus	
Planung	September 2020 Regelmäßiger Austausch über Projektstand mit Beratern, Recherche der verfügbaren Dokumente, Konzeption der Interviews
Handeln und Beobachten	Oktober-November 2020 Datenerhebung durch semi-strukturierte Interviews mit Berater 1 und Wirtschaftsförderung Bornheim, Analyse der Projekt-Dokumente
Reflektieren und Anpassen	November 2020 Reflektion der Aussagekraft der ersten Interviews und Anpassung des Leitfadens
2. Action Research Zyklus	
Handeln und Beobachten	Dezember 2020 Datenerhebung durch angepasstes semi-strukturiertes Interview mit Berater 2
Reflektieren	Dezember 2020 -Januar 2021 Analyse und Verarbeitung der erhobenen Daten

Table 6.2: Forschungsdesign nach dem Action Research Modell (Zeitraumen und Phasen)

6.5 Erstellung eines Gemeinwohlberichtes in der WFG Bornheim als Mechanismus gradueller institutioneller Veränderung in RTPS

Auf Basis der erhobenen Daten stellt das folgende Kapitel die operationalen und institutionellen Veränderungen während der Berichterstellung in den Zusammenhang der Pfadabhängigkeit von RTPS. Zur Systematisierung der Interdependenzen zwischen der WFG als Organisation und den regionalen institutionellen Veränderungen unterteilt sich die Sektion in drei Unterkapitel: Betrachtungen zur Rolle des formellen Kontexts und der Organisationsstruktur

der regionalen Wirtschaftsförderung, Betrachtungen zur Rolle der Akteure der Wirtschaftsförderung und deren Praktiken sowie Betrachtungen zu Interdependenzen der WFG Bornheim als Organisation mit anderen institutionellen Systemen.

6.5.1 Rolle des formellen Kontexts und der Organisationsstruktur der Bornheimer

Wirtschaftsförderung

Die Stadt Bornheim liegt im Süden Nordrhein-Westfalens und verzeichnete im Jahr 2019 rund 48.000 Einwohner. Wirtschaftlich ist die Stadt als eher ländlich geprägt einzustufen. Durch ihre Lage in unmittelbarer Nähe zu den Großstädten Bonn und Köln, profitiert Bornheim jedoch von deren dynamischer wirtschaftlicher Entwicklung und den dort knappen Gewerbeflächen. Entsprechend machen zahlreiche Investorenanfragen von Unternehmen zur Standorterweiterung oder Neuansiedlung in dieser Region einen überlegten Umgang mit den verfügbaren Flächen notwendig. Aus diesem Grund wurde im Jahr 1999 die Wirtschaftsförderungs- und Entwicklungsgesellschaft mbH Bornheim (WFG Bornheim) gegründet. Sie dient als Gesellschaft der Stadt Bornheim, der Kreissparkasse Köln und der Volksbank Köln Bonn eG, laut Gesellschaftsvertrag dem Zweck, Gewerbeflächen zur Verbesserung der „wirtschaftliche[n] und soziale[n] Struktur der Stadt Bornheim“ zu erwerben, zu entwickeln und zu vermarkten (Gesellschaftsvertrag der WFG, § 2.1). Andere Aufgaben wie die Bestandpflege oder Fördermittelberatung der lokalen Unternehmen werden über das Amt für Wirtschaftsförderung der Stadtverwaltung übernommen. Der Geschäftsführer der WFG ist hauptamtlich Beigeordneter sowie Planungs- und Baudezernent der Stadt Bornheim. Diese formelle Struktur der WFG ermöglicht enge Verbindungen sowohl in die regionale Politik als auch in die Verwaltung, welches insbesondere zur Legitimation der strategischen Ausrichtung der WFG Vorteile mit sich bringt. Denn zum einen ist durch die operative Selbstständigkeit die politische Einflussnahme auf die WFG, im Gegensatz zu einer Ämterorganisation, sehr gering (WFG Bornheim). So kann die WFG beispielsweise eigenständig Entscheidungen treffen, an

welche Investoren Flächen verkauft oder nach welchen Grundsätzen Gewerbeflächen entwickelt werden. Zum anderen können durch die bestehenden Verbindungen zu Politik und Verwaltung frühzeitig Rücksprachen mit wichtigen Akteuren des regionalen Wirtschaftsförderungssystems (z.B. Stadtrat, Bürgermeister, Ortsvorsteher) gehalten werden (WFG Bornheim).

Die Initiation des Projektes zur Erstellung eines Gemeinwohlberichtes lag dementsprechend allein in der Verantwortung der WFG. Die individuelle Motivation der Wirtschaftsförderer spielte dabei die entscheidende Rolle, einen selbstreflexiven Ansatz zur Weiterentwicklung der eigenen Praktiken anzustoßen. Der Projektprozess involvierte die beiden Wirtschaftsförderer der WFG, eine zertifizierte Gemeinwohlberaterin aus der Region sowie einen zertifizierten Gemeinwohlberater mit Expertise im Bereich der Wirtschaftsförderung. Die Zusammenarbeit aus regionaler GWÖ-Beraterin und Expertise zum Fachthema Wirtschaftsförderung überbrückte dabei Wissenslücken einzelner Akteure. So konnte zudem die ursprünglich für Unternehmen entwickelte Gemeinwohlmatrix erfolgreich an die Spezifika der Wirtschaftsförderungsorganisation übertragen werden (Berater 1).

Der formelle Kontext des Projekts als auch die bestehende Organisationsstruktur der WFG boten demnach einen optimalen Rahmen für ein Pilotprojekt zur Orientierung einer Wirtschaftsförderungsorganisation an den Grundwerten der Gemeinwohlökonomie. Ziel des Projektes war die Erstellung eines Gemeinwohlberichtes, der einerseits als Standortbestimmung der WFG zu Fragen der Nachhaltigkeit dienen sollte. Andererseits sollten Impulse für die operative Strategieentwicklung abgeleitet werden. Damit wurde ein erster Schritt zur Organisationsentwicklung getan, welcher potenzielle Folgeprojekte vorbereiten (zum Beispiel eine Gemeinwohlbilanzierung bestehend aus Berichterstellung und offizieller Zertifizierung durch die GWÖ) als auch angewandte Praktiken hinterfragen und weiterentwickeln soll. Zur Erreichung dieses Ziels untergliederte sich der Projektprozess in ein Auftaktgespräch zur Vorbereitung und Kommunikation des Projektverlaufs, fünf Workshops

zur Ausarbeitung und Bewertung der zwanzig Kriterien der Gemeinwohlmatrix, der Erstellung des Berichtes und Bewertung des Prozesses sowie der Präsentation der Ergebnisse in Öffentlichkeit und politischen Gremien.

Bis hierhin wird deutlich, dass die bestehende Flexibilität und Eigenständigkeit der Wirtschaftsförderungsorganisation sowie ihre formelle Einbettung in das regionale Institutionensystem in unserem Fallbeispiel die Voraussetzungen für kritische Selbstreflektion und die Weiterentwicklung der angewandten Handlungsmuster sind. Auch die marginalen gesetzlichen Bestimmungen bieten genügend Freiheiten und damit einen geeigneten Rahmen, um Wirtschaftsförderungen die Anwendung nachhaltigerer Praktiken zu ermöglichen. „Da kann man so kreativ unterwegs sein, das könnte man durch Gesetze gar nicht regeln“ (WFG Bornheim). Somit wird klar, dass graduelle institutionelle Änderungen durch eine Neuorientierung an den Instrumenten eines alternativen Wirtschaftsmodells zunächst auch innerhalb einer bestimmten Organisation auftreten können. Zur Analyse, wie diese Veränderungen durch die Erstellung des Gemeinwohlberichtes in der WFG Bornheim angestoßen wurden, verlangt es einen detaillierten Blick auf die involvierten Akteure und den Einfluss des neuen institutionellen Orientierungsrahmens auf deren Praktiken.

6.5.2 Rolle der Akteure der Wirtschaftsförderung und deren Praktiken

Als Auftraggeber und regional operierender Akteur ist der Wirtschaftsförderer der WFG Bornheim der zentrale Treiber des Organisationsentwicklungsprozesses. Bereits während seines Diplomstudiums legte er seinen akademischen Fokus auf nachhaltiges Wirtschaften und setzte Überlegungen zu diesem Thema auch im beruflichen Umfeld fort (WFG Bornheim). Im Zusammenspiel mit der hohen Nachfrage nach Gewerbeflächen im unmittelbaren Umfeld der Städte Bonn und Köln, wurde ein nachhaltiger Umgang mit der begrenzten Ressource Boden bereits vor der Berichterstellung angestrebt (Berater 2). So existierten schon vor Projektbeginn Instrumente der Wirtschaftsförderung, um Nachhaltigkeitsaspekte zu berücksichtigen.

Insbesondere die Anwendung eines Vergabekataloges für Gewerbeflächen sollte die Ansiedlung von bestimmten Branchen und Unternehmensformen steuern. Die Ansiedlungssteuerung ist zwar neben der gezielten Einbindung lokaler Akteure in die strategische Arbeit (Partizipation) das Hauptinstrument für nachhaltige Wirtschaftsförderung (Berater 1). Dennoch war eine strukturiertere Auseinandersetzung mit dem Thema Nachhaltigkeit die ursprüngliche Motivation des Projektes der GWÖ-Berichterstellung. Es war der Anspruch des Wirtschaftsförderers, einen besseren Überblick über die eigene Arbeit zu bekommen, denn bestehende Berichterstattungen (Jahresberichte) bilden die eigentliche Arbeit außerhalb der finanziellen und regionalwirtschaftlichen Kennzahlen der WFG nur ungenügend ab. „Die WFG hat den Auftrag der Verbesserung des wirtschaftlichen und sozialen Standortes Bornheim. Und dazu gehören nicht nur neue Arbeitsplätze“ (WFG Bornheim).

So wirkte der Erstellungsprozess des Gemeinwohlberichtes bereits als Impulsgeber für unterschiedliche organisationsinterne institutionelle Veränderungen. Zum einen erweiterte der strukturierte, selbstreflexive Ansatz die Wahrnehmung hinsichtlich der Zielgruppen der Wirtschaftsförderung. So sind nicht nur Unternehmen Kunden, denen Dienstleistungen in der Verwaltung angeboten werden. „Durch den Gemeinwohlbericht ist uns deutlich geworden, dass wir einen doppelten Kundenbegriff haben. Kunden im engeren Sinn, also die Unternehmen. Aber im weiteren Sinne auch die Bürger“ (WFG Bornheim). Ein adäquater Einbezug der unterschiedlichen Interessen und die damit einhergehenden Konflikte machen eine nachvollziehbare Entscheidungsbasis und transparente Kommunikation notwendig (WFG Bornheim). Durch die Frage, für wen Wirtschaftsförderung betrieben wird, entsteht also auch ein Nachdenken über mögliche Praktiken, wie die unterschiedlichen Interessen einbezogen werden können. Erste Beispiele für eine solche Art der Wirtschaftsförderung sind in der WFG Bornheim bekannt. Beispielsweise existieren in anderen Regionen innovative Formen der Partizipation in der Stadtentwicklung (z.B. Partizipation vor allem junger Menschen bei

städtebaulichen Projekten), deren Übertragung nach Bornheim nun geprüft wird (WFG Bornheim).

Zum zweiten hat der Prozess der Berichterstellung das Verständnis von Nachhaltigkeit bei der Wirtschaftsförderung erweitert. Zuvor wurde „der Nachhaltigkeitsbegriff sehr schwerpunktmäßig auf ökologische Nachhaltigkeit gelegt [...]. Und die GWÖ hat [...] eine Erweiterung dieser Sicht, vor allen Dingen auf die Aspekte soziale Komponenten und auch Transparenz/Partizipationskomponenten, [gebracht]“ (Berater 1). Bereits während des Projektes wurde dieses erweiterte Verständnis von Nachhaltigkeit operativ integriert. So wurde zum Beispiel bei einer Investorenanfrage nach der Einhaltung der Tarifordnung des Bundeslandes gefragt, die ein bestimmtes Grundgehalt für die potenziellen Arbeitnehmer sicherstellt. Diese Praktik entstand explizit auf Basis der Reflektionen über die soziale Komponente nachhaltiger Wirtschaft und Wirtschaftsförderung (WFG Bornheim).

Zuletzt führt die Auseinandersetzung mit den Kriterien der Gemeinwohlökonomie bei der Berichterstellung zu der Frage: „Welche Wirtschaft wollen wir fördern?“ (Berater 1). Denn der selbstkritische Blick auf die eigene Organisation und deren Entwicklung zu mehr Nachhaltigkeit, führt auch zu veränderten Anforderungen an lokale Unternehmen und Investorenanfragen. So werden bei Investorenanfragen neue Informationen von den Unternehmen eingefordert, die sich beispielsweise auf die Gewährleistung des Mindestlohnes oder der Ermöglichung von Ladestationen für Elektrofahrzeuge beziehen. Die WFG Bornheim wirkt in dieser Weise selbst als transformatives Unternehmen innerhalb des regionalen institutionellen Kontexts (Berater 1).

Anhand dieser drei beispielhaften institutionellen Änderungen und deren Wirkungen auf bestehende Praktiken wird bereits deutlich, dass eine Orientierung am Werteschema der Gemeinwohlökonomie auch für kommunale Wirtschaftsförderungen als Instrument einer nachhaltigen Organisationsentwicklung wirken kann. Über diese graduellen Veränderungen innerhalb einer Organisation werden auch Impulse für das regionale System sichtbar, in das die

Wirtschaftsförderung eingebettet ist. Jedoch ist zu unterstreichen, dass eine Orientierung an alternativen Wirtschaftsmodellen wie der GWÖ nicht ad hoc institutionelle und praktische Veränderungen mit sich bringt. „Wir sind nicht auf einmal umweltfreundlich und vorher waren wir negativ unterwegs. Wir haben durch die Erstellung des Gemeinwohlberichts festgestellt, dass wir schon ganz gut aufgestellt sind. [...] Jetzt haben wir einige Verbesserungsansätze, bei denen wir in ein, zwei Jahren mal gucken müssen, wie weit wir da vorangekommen sind“ (WFG Bornheim). Dieser Prozesscharakter der Organisationsentwicklung verlangt jedoch grundsätzlich Offenheit der Mitarbeitenden, deren Motivation, sich für Nachhaltigkeit einzusetzen und die Konsequenz, das veränderte Verständnis in die Praxis umzusetzen (Berater 1). Mit diesen Voraussetzungen und mithilfe der Erstellung des Gemeinwohlberichtes konnten bestehende Instrumente der WFG (z.B. Flächenvergabekatalog, Ausgleichsmaßnahmen) organisationsintern bewertet, weiterentwickelt oder durch neue Praktiken ergänzt werden (WFG Bornheim).

6.5.3 Interdependenzen der WFG Bornheim als Organisation mit anderen institutionellen Systemen

Organisationsintern erwies sich für die Erstellung des Gemeinwohlberichts das kleine Team als vorteilhaft für die Projektarbeit und die Selbstreflektion zu Fragen des institutionellen Orientierungsrahmens der GWÖ. Die Reduktion auf eine Kerngruppe von Wirtschaftsförderung und GWÖ-Beratern führte zu schnellen Konsensfindungen, hoher Motivation der involvierten Akteure und durch die Konstanz im Projektverlauf zu schneller Vertrauensbildung (Berater 2). Zudem war der Projektverlauf, aufbauend auf den Erfahrungen aus den Bilanzierungsprojekten privatwirtschaftlicher Unternehmen, organisatorisch zielführend aufgebaut und kompetent begleitet (Berater 2). So traten trotz der vielfältigen Beziehungen der WFG zu Politik, Verwaltung und anderen regionalen Akteuren keine grundlegenden Hindernisse für die Projektumsetzung auf. Inhaltliche Fragen zur GWÖ und

Informationslücken wurden in Workshops direkt geklärt (Berater 2). Die begleitende Expertise als Kooperation von regionaler GWÖ-Beraterin und einer Beratungsfirma mit dem Fokus auf das Thema Wirtschaftsförderung war dem entsprechend sehr hilfreich, um die Gemeinwohlmatrix für Unternehmen auch für die Gemeinwohlberichterstattung einer Tochtergesellschaft des öffentlichen Sektors zu nutzen. Graduelle institutionelle Änderungen durch die Berichterstellung auf der Mikro-Ebene konnten wie zuvor beschrieben leicht in praktische Veränderungen umgesetzt werden.

Jedoch stellt insbesondere die Kommunikation mit anderen Akteuren des regionalen institutionellen Systems eine Herausforderung für die Wirtschaftsförderung dar. „Ich glaube, dass die GWÖ grundsätzlich einen guten Rahmen setzt. [...] Irgendwo steht ja dahinter der Sinn des Wirtschaftens. [...] Da müssen natürlich auch die Werte, die dahinterstehen, kommuniziert werden. Das ist in einer Gesellschaft, die recht individualistisch geprägt ist, eine Herausforderung“ (WFG Bornheim). Insbesondere die unterschiedlichen Standpunkte innerhalb einer differenzierten Gesellschaft verlangen eine überlegte Kommunikation: „Die Kunst als Wirtschaftsförderer ist es, das psychologisch richtig rüberzubringen, damit Unternehmen sich nicht abgestoßen fühlen“ (WFG Bornheim). So ist zwar auch für Unternehmen Nachhaltigkeit ein zentrales Thema. Jedoch benötigt es argumentativ häufig den Rückgriff auf wirtschaftliche Anreize, wie beispielsweise den Zusammenhang von Ressourcenschonung und Kostenersparnis, um nachhaltigere Praktiken zu legitimieren (WFG Bornheim).

Zusätzlich gestaltet sich die Anwendung von Praktiken zur differenzierteren Förderung von Unternehmen als herausfordernd. So konnten zwar neue Impulse für die Weiterentwicklung des bereits vor dem Projekt bestehenden Flächenvergabekatalog genutzt werden. Jedoch führen reale Investorenanfragen immer wieder zu Paradoxen, die Probleme bei deren Bewertung hervorrufen. „Ein Beispiel: [...] Wir sind ja alle dafür, dass der ÖPNV ausgebaut wird. Da gibt's einen Unternehmer, [...] der sucht eine Fläche, wo er auf 5000 m² seine Busse abstellen

kann. Das entspricht aber nicht unseren Ansiedlungskriterien“ (WFG Bornheim). Das Beispiel verdeutlicht, dass festgeschriebene Kriterien allein eine vollends durchdachte nachhaltige Vergabepraxis nicht ermöglichen. Diese Inkonsistenzen zwischen institutionellen Grundwerten und den real angewandten Praktiken führen jedoch zu einer schwierigeren Kommunikation mit Investoren, Politik und regional agierenden Lobbygruppen (WFG Bornheim). So beruhen die Entscheidungen der Wirtschaftsförderung zwangsläufig auch auf teils subjektiven Abwägungen und können dadurch von anderen Akteuren infrage gestellt werden. Diese Angreifbarkeit ist zugleich die größte Sorge der WFG Bornheim, wenn das Projekt auf überregionalen Vernetzungstreffen als Good Practice für nachhaltige Wirtschaftsförderung herangezogen wird. So könnten Gegenargumente aufkommen, die die Ansiedlung bestimmter Unternehmen in Bornheim als nicht nachhaltig bezeichnen. „Ich bin da insofern immer etwas zurückhaltend, weil die Frage ist immer, wie weit wir das zu 100% umsetzen können, weil das im Konkreten doch oft schwierig wird“ (WFG Bornheim). Die Kommunikation des Projektes zur Erstellung eines Gemeinwohlberichtes und die Auswirkungen auf die praktische Arbeit der Wirtschaftsförderung hängt demnach auch stark von den Einstellungen anderer Akteure gegenüber Nachhaltigkeitsbestrebungen ab. Neben Kritikern finden sich aber in der regionalen Politik auch Befürworter des Vorgehens. So wurde beispielsweise kurz nach Abschluss der Berichtserstellung und unabhängig von der Organisationsentwicklung der WFG Bornheim ein Bürgermeister in Bornheim gewählt, der selbst in der GWÖ-Community engagiert ist (Berater 1).

Der RTPS in Bornheim wird trotz der zuvor genannten Hindernisse durch die operative Ebene der Wirtschaftsförderung mitgestaltet. So finden sich bereits vielfältige Ansätze zur stärkeren Integration von Unternehmen in die regionalen Nachhaltigkeitsbestrebungen. Als Beispiel wurde durch Anregungen der Wirtschaftsförderung planungsrechtliche Vorgaben in Bebauungsplänen verändert, um Solaranlagen oder Dachbegrünungen zu fördern. Über eine stärkere Beteiligung der Unternehmen an den Kosten für ökologische Ausgleichsmaßnahmen

bei Ansiedlungsfällen könnte zudem eine Sensibilisierung für nachhaltigere Ansätze ermöglicht werden. So besteht in der aktuellen Ansiedlungspolitik ein großes Defizit, dass Unternehmen keinen Anreiz haben, sich über ökologisch oder sozial verträglichere Lösungen Gedanken zu machen, da viele Kosten (z.B. Kosten für die Regenrückhaltung zur Vermeidung von Überflutungen, Belastungen durch erhöhtes Verkehrsaufkommen) durch die Allgemeinheit getragen werden (WFG Bornheim). Die vorgenannten Beispiele zeigen bereits, dass die Praktiken zur Förderung nachhaltiger Wirtschaft nicht allein durch die Wirtschaftsförderung erfolgen. Vielmehr können die engen Verbindungen zu Politik und Verwaltung genutzt werden, um bestehende administrative Instrumente so anzupassen, dass sie auch von Unternehmen nachhaltiges Handeln einfordern. Darüber hinaus entstehen durch die Erstellung des Gemeinwohlberichts auch Nachhaltigkeitsimpulse für den Umgang mit weiteren Partnern der Wirtschaftsförderungen wie Planungsbüros, Notare, Banken, Vermessungsbüros oder Baufirmen (WFG Bornheim). Auf diese Weise wirkt der Gemeinwohlbericht über das Instrument zur internen Organisationsentwicklung hinaus, indem es von den einzelnen Berührungsgruppen der Wirtschaftsförderung mehr Nachhaltigkeit verlangt.

Obwohl bereits vor dem Projekt Ansätze nachhaltiger Wirtschaftsförderung in Bornheim existierten, hat die Erstellung des Gemeinwohlberichtes zu einer Vielzahl von institutionellen Neuerungen geführt, die auch in Zukunft weiterentwickelt werden sollen. „[Der Wirtschaftsförderer der WFG] war an drei, vier Stellen überrascht und fast ein bisschen beschämt, wie wir ihn so über den Klee gelobt haben. [...] Er ist Motor der Kooperation mit den Nachbarkommunen. Also dort wo Standortkonkurrenz die Normalität ist, hat er immer den Austausch gesucht und dazu beigetragen Branchenstandards zu erhöhen. [...] Wir haben ihm über den Prozess auch ein Stückweit das Selbstvertrauen gegeben, dass das was er schon gemacht hat, gut ist. [...] Ich glaube, das ist auf der psychologischen Ebene ein enorm wichtiger Punkt“ (Berater 1). Das bedeutet, dass die WFG Bornheim mithilfe der GWÖ-Berichterstattung weiterhin und verstärkt als Impulsgeber für nachhaltigere Ansätze in der Region agieren kann,

welche nicht nur auf praktischer, sondern auch institutioneller Ebene wirken. In einem nächsten Schritt wird für die WFG Bornheim eine Auditierung durchgeführt, sodass die Organisation als Unternehmen mit Gemeinwohlbilanzierung das Logo der Gemeinwohlökonomie nutzen darf. Zwar hat dies keine direkten rechtlichen Auswirkungen für die Organisation, jedoch zeigt der Auftrag, dass der eingeschlagene Weg der WFG Bornheim auch von der lokalen Politik akzeptiert wird. Zudem wird das Zertifikat ein wichtiges Zeichen für andere Organisationen sein, wie nachhaltige Wirtschaftsförderung umgesetzt und weiterentwickelt werden kann (Berater 1).

Auch für die Bewegung der Gemeinwohlökonomie stellt das Pilotprojekt in Bornheim eine Neuerung hinsichtlich der anvisierten Zielgruppe dar. Der bisherige Schwerpunkt auf privatwirtschaftliche Unternehmen erweitert sich nun auf Wirtschaftsförderungsorganisationen, die durch lokale GWÖ-Berater angesprochen und in ihrer Entwicklung zur Nachhaltigkeit begleitet werden können (Berater 1). „Jetzt kommt dazu, dass mit der Erstellung einer Gemeinwohlbilanz das bilanzierende Unternehmen auch Mitglied der GWÖ werden muss. Und schon hat es eine Mail seitens des Vereins Rheinland [an die WFG Bornheim] gegeben [...] in der signalisiert wurde: Und gerne würden wir Sie als Leuchtturm auch an andere [Wirtschaftsförderungen] weitergeben“ (Berater 1). Auf diesem Weg werden regional erfolgreiche GWÖ-Projekte überregional vermarktet und können damit erheblich zur institutionellen Veränderung von anderen regionalen Wirtschaftsförderungssystemen beitragen. Da die prozessbegleitende Beratungsfirma zum Thema Wirtschaftsförderung bereits national agiert, wird diese zusätzlich Impulse zur Umsetzung von GWÖ-Projekten in andere regionale Systeme einbringen (Berater 1). Damit bildet die GWÖ-Community sowohl einen Orientierungsrahmen für regional operierende Organisationen als auch einen Transferraum zur Diffusion nachhaltiger Praktiken in andere Kommunen und deren institutionelle Systeme. Die Anwendung von Instrumenten der Gemeinwohlökonomie (Gemeinwohlbericht, Bilanzierung)

wirkt somit als Mechanismus für graduelle institutionelle und praktische Veränderungen auf Mikro-Ebene, welche zugleich aktiv Impulse in die interdependenten Systemebenen abgeben.

Kommunale Wirtschaftsförderungen nehmen deshalb für die Rolle des öffentlichen Sektors in RTPS eine potenzielle Schlüsselfunktion ein. Denn „im Vergleich zur öffentlichen Verwaltung sind [Wirtschaftsförderungen] weniger konservativ. Bei Wirtschaftsförderungen ist immer der problemlösende Ansatz da. [...] Und in der Verwaltung [herrscht] eher das Zuständigkeitsprinzip“ (WFG Bornheim). Bereits mit der aktuellen Organisationsform der Wirtschaftsförderung ergeben sich viele Freiheiten in den angewandten Praktiken, die in anderen Bereichen der öffentlichen Verwaltung nicht gegeben sind (Berater 1). Daraus ergibt sich aber auch die Frage, ob Wirtschaftsförderungen, die als Amt organisiert sind, ähnliche Impulse für die RTPS geben können. Fest steht, dass der bestehende institutionelle Kontext des Wirtschaftsförderungssystems genügend Offenheit für nachhaltige Praktiken auf regionaler Ebene bietet. Gleichzeitig zeigt das Fallbeispiel, dass Wirtschaftsförderungen, die als Amt organisiert sind, durch ihre enge Verwobenheit in die Prozesse der Verwaltung potenziell weniger offen für institutionelle und praktische Veränderungen sind. Ob eine Gemeinwohlbilanzierung über die interne Funktion als Instrument der Organisationsentwicklung hinaus Prozesse zur nachhaltigeren regionalen Entwicklung anstoßen kann, hängt dabei neben den ansässigen Betrieben vor allem von der Offenheit der regionalen Politik ab. „Wenn [allerdings] die Politik offen für die GWÖ ist, dann ist es klug mit der Wirtschaftsförderung zu beginnen, weil die durch ihre mannigfaltigen Kontakte in die Wirtschaft hinein ein wunderbarer, der beste Multiplikator ist“ (Berater 1).

6.6 Konklusion

In diesem Artikel wurde beschrieben, wie Wirtschaftsförderungsorganisationen als Vorbild und Impulsgeber in den öffentlichen und privaten Sektor aktiv zu RTPS beitragen können. Ein Mechanismus, um institutionelle und praktische Veränderungen zu mehr Nachhaltigkeit

anzustoßen, ist die Anwendung von Instrumenten der Gemeinwohlökonomie. Es konnte anhand des Beispiels der WFG Bornheim gezeigt werden, dass die Gemeinwohlbilanz als Organisationsentwicklungstool auch für Wirtschaftsförderungen praxisnahe Veränderungsimpulse setzen kann. Diese können nicht nur organisationsinterne Prozesse nachhaltiger Entwicklung hervorrufen, sondern durch die Einbettung der Organisation in den regionalen Kontext institutionelle Veränderungen auch auf systemischer Ebene entfalten.

Im Kontext der RTPS war die Nutzung der Plastizität des regionalen institutionellen Entwicklungspfad durch die Wirtschaftsförderung ein entscheidender Faktor für den Erfolg des untersuchten Projektes. So brechen die veränderten Institutionen und Praktiken der Organisation nicht radikal mit bereits bestehenden Handlungsmustern. Vielmehr zeigte sich, dass die Interaktionen der Wirtschaftsförderung mit anderen Akteuren und die dabei genutzten Praktiken dazu beitragen können, institutionelle Veränderungen im unmittelbaren Umfeld zu legitimieren und zu stabilisieren. Jedoch existieren für die dauerhafte Stabilisierung des eingeschlagenen Pfades auch Hindernisse. So bleibt ungewiss, ob sich die Gemeinwohlökonomie als Orientierungsrahmen im System der Wirtschaftsförderung etablieren kann. Auch in Zukunft wird es schwierig sein, die Vorgaben eines ambitionierten, nachhaltigkeitsorientierten Ansatzes mit den realen Sachzwängen (finanzielle und personelle Ressourcen) der kommunalen Wirtschaftsförderung zu vereinbaren. Gleichzeitig bleibt offen, wie stark der Entwicklungsprozess an dem Engagement einzelner Akteure hängt, die dadurch einer signifikanten Mehrbelastung ausgesetzt sind.

Trotzdem zeigt das Fallbeispiel, dass die GWÖ schon jetzt als Vehikel dienen kann, um über kleinere Veränderungen auf institutioneller und praktischer Ebene die RTPS mitzugestalten. Und zwar nicht nur als Instrument zur Organisationsentwicklung auf Mikro-Ebene, sondern auch als Impulsgeber für mit der Wirtschaftsförderung interdependente Akteure wie Unternehmen, Politik und Verwaltung. Für die Forschung und das weitere Verständnis der RTPS ergibt sich jedoch das Erfordernis, Einzelprojekte und deren graduelle Veränderungen in

einen längerfristigen Kontext zu setzen. Insbesondere Untersuchungen, über welche Praktiken und Mechanismen sich Institutionen regional stabilisieren, können nützliche Einsichten über die erfolgreiche Entwicklung von Regionen zu mehr Nachhaltigkeit generieren. Zudem sollten systematisch regionale Vergleiche von RTPS realisiert werden, um die komplexen Zusammenhänge von endogenen regionalen Veränderungsdynamiken und überregionalen, multiskalaren institutionellen Veränderungen besser zu verstehen.

V CONCLUSIONS

7 Conclusions

The Geographies of Sustainability Transitions are still an emerging field of research. It is uncertain whether GeoST will continue to be considered as a heading for diverse, space-related sustainability research or will be established as a separate theoretical concept. Currently, exploratory, experimental, and interdisciplinary approaches are required to substantiate the GeoST from a theoretical-conceptual and empirical-methodical point of view. In this thesis, three theories were examined that contribute to explaining the complex socio-spatial dynamics essential for regional development path to sustainability. Thereby, a focus is set on the example of embedding sustainability into regional economic development strategies, drawing together multiple topics such as politics and policy, economics and knowledge, value systems and spatial interdependencies. This work thus contributes to understanding the engaged actors, dynamics, and pathways of regional sustainability transitions. To detail this contribution, the results related to the central research questions are discussed below.

7.1 Main Findings

SQ 1

How can processes of Policy Mobilities be better understood through the integration of Knowledge Dynamics?

Recently, several authors have integrated the knowledge component in Policy Mobilities (Frantzeskaki and Rok 2018; Heino and Hautala 2021). Yet, insights into this area are still limited. Bringing together the previously separate research strands in PM and Knowledge Dynamics now enables to gain new and profound insights into the complex relationships in the knowledge-intensive sector of policy making. Particularly, the chapters four and five emphasize the importance of combinatorial knowledge dynamics and KIBS as drivers of combinatorial

knowledge dynamics in Policy Mobilities. Due to the revealed synergies of the two approaches, four main contributions to current research in these fields can be identified.

First, the **Knowledge Dynamics approach complements and details the important factor of knowledge in policy assemblage thinking**. Even if policy knowledge was perceived as a component in policy assemblages in previous studies, there were still theoretical and empirical gaps on this topic as its notion was reduced to a mere tool for (re)producing global policy assemblage. Surely, McCann's 2011 research agenda paper addresses the issue of knowledge and Prince's work delves in much more detail into the assemblage and knowledge production work of consultants. However, the integration of micro-level Knowledge Dynamics now enables in-depth analyzes of PM processes that are inherently knowledge-driven (McCann 2017). In this regard, chapter five indicates that KDs can also enrich the debate about the social construction of successful and failed policies, for instance through profitable learning effects and knowledge dissemination during reputedly failed policy making processes (Lovell 2019). By integrating knowledge dynamics, the dualism of mobility and immobility of policies can also be explored in much more detail since it examines which type of policy knowledge is mobile and which is not (McCann 2011a). Analysis of KD thus contributes to the detailing and supplementing of some current debates in PM research (McCann and Ward 2015).

Second, **the socio-constructivist understanding of policy knowledge offers a definition that is in line with the central concept of assemblage in PM** (Strambach 2012). Definite characterizations and the origin of knowledge thus replaces a conceptual understanding considering knowledge as taken-for-granted and as a mere tool for reproducing specific political agency. Building on the socio-constructivist notion of knowledge, chapter four introduces conceptual ideas on the role of knowledge and knowledge-intensive services (KIBS) in PM, which are empirically addressed in chapter five. Based on the specified understanding of (policy) knowledge, detailed analyzes of practices that assemble policies and other entities in PM are made possible (Anderson and McFarlane 2011). Furthermore, practices are the central

empirical access point for assemblage research. Thus, by analyzing the underlying knowledge dynamics, insights can be gained about why certain policy actors behave and act like they do. In this way, policy knowledge and its micro-level dynamics are assigned a significantly stronger influence on the practices and processes of current policy making. This corresponds more to the knowledge-intensive character of many policies, especially on the topic of sustainability, as these often also aim for institutional changes (Adscheit and Schmitt 2018).

This also leads to the third main result regarding research question one. **The integration of KD in PM Research offers a theoretical and empirical-conceptual framework to better understand and research sustainable policies and their multi-facet assembling.** Sustainable policies are in most cases characterized by complex relationships and multi-actor constellations with different specialist knowledge (Temenos and McCann 2013). Combinatorial Knowledge Dynamics aim to connect different knowledge bases with one another, to transfer knowledge from one place to another (decontextualization) and to consider the local institutional contexts (recontextualization) (Strambach 2012). In this sense, policy mutation can be understood as an innovation as well since knowledge dynamics lead to changes in the policies' content over time. Therefore, knowledge dynamics act as a link to explain the mutual shaping of policies, policy actors and the socio-spatial contexts they are embedded in (Werner and Strambach 2018). The combination of PM and KD thus represents a promising tool for systematic research on the time- and space-specific development of sustainable policies and their effects.

Fourth, **the findings from KIBS research specify the role of policy consultants.** Consultants are already described as socially complex and institutionally embedded actors in PM literature (Peck and Theodore 2010b). The addition of their function as central drivers of cumulative and combinatorial Policy Knowledge Dynamics opens a new research perspective that explains why consultants behave the way they do (Strambach 2008). The chapters five and six provided initial insights into how consultants assemble sustainable policies in cooperation and in co-production with customers. In both cases, it has been shown that the relations among

the collaborating actors take effect as supportive and impeding factors during the examined projects (Boschma 2005). The argument formulated by Strambach (2012: 1846f.) therefore also applies to policy consultants: ‘[a]ctors in geographical proximity often share the same culture, the same institutional environment and social practices which create [...] cognitive proximity, the basis for effective communication and mutual understanding.’ As in KIBS research, implications for policy and practitioners can be derived from these examples, as they revealed new insights about mechanisms specifying why certain processes are successful or not (see also chapter 7.4). By including cognitive, institutional, social, cultural, and geographical factors, the integration of KD can also be useful as an approach for researching socio-spatially differentiated ‘variegated consultocracies’ (Hodge and Bowman 2006).

SQ 2

How do Policy Knowledge Dynamics influence the invention of new (sustainable) policies?

Chapter five provides an empirical example to show how knowledge dynamics influence the invention of a sustainable policy. The paper builds on the conceptual reflections of combining Knowledge Dynamics and Policy Mobilities in Chapter four. The case study of policy invention may be considered as a blueprint to examine other PM processes, such as mobilization, transfer or localization, regarding the role of knowledge, as well. Four key results address the question of how policy knowledge dynamics influence the invention of sustainable policies.

First, **it has been empirically proven that knowledge is a crucial component in explaining why certain policies prevail in the competitive policy making arena** (Peck 2011). The case study illustrates, among other things, that joint projects and collaborations can be dissolved due to cognitive distances (Boschma 2005). This point seems to be particularly relevant for the creation and enforcement of sustainable policies, as these, due to their multi-disciplinarity and complexity, require cognitive proximity of the actors involved.

Second, **the proximity approach proved a useful tool for capturing knowledge dynamics in PM processes.** The systematization of the different proximities enabled a multi-perspective analysis of the policy invention process (Boschma 2005; Balland et al. 2015). In the case study used in chapter five, the lack of cognitive proximity was emphasized as a decisive factor for dissolving the cooperation. Due to lack of clarity and differing understandings of central concepts such as ‘sustainability’ or ‘economy’, practices of combining different knowledge bases remained ineffective (Strambach and Klement 2012). However, further factors became evident that go beyond the social aspect of the cooperating actors, but that arose from the lack of cognitive proximity. For example, the actors were unable to agree on a joint policy approach, since the strategies to foster sustainability may necessitate radical or incremental behavioral changes in the target groups. Due to the following delays and the lack of substantial consensus, resource-related factors became more and more urgent. All in all, the proximity approach frames the knowledge dynamics underlying a specific PM process and, analogous to innovation research, reveals supporting and detaining factors of the invention process (Hansen 2014).

Third, **the method of participatory observation effectively revealed socio-temporal changes during the process of invention.** The case study in chapter five shows how the way of knowledge sharing, the importance of different proximities and interactive practices among the actors have changed over time. At the beginning of the collaboration, practices focused on establishing and testing social and institutional proximity. For example, current projects and order situations were often discussed, which also contained sensitive information. Through creating transparency of the economic situation, mutual trust was strengthened (Gössling 2004; Torre 2008). The interviews confirmed this impression and highlighted the social and institutional proximity of the actors as the basic requirement for starting projects like the invention of policies at all. Later meetings, however, set the knowledge aspect into focus

revealing existing cognitive distances that could only be overcome with significant use of resources and ultimately led to the dissolution of the cooperation.

Fourth, **the analysis of knowledge dynamics and proximities positions policy consultants in specific PM processes and in trans-regional policy networks**. New insights about knowledge sources, processing methods and the mobilization of knowledge could be gained, so that not only internal organizational dynamics are profoundly understood. Rather, knowledge dynamics contextualize the actors involved in knowledge networks beyond their own organization by illuminating interactions with other organizations. Chapter five illustrates this, as the central practices of the examined case study are not only related to the knowledge level (follow and examine debates) but also to inter-organizational aspects of institutional change (influencing the client's mindset), product development through collaboration (co-production) and expansion of capacities (employing strategic partnerships). Hence, knowledge dynamics can contribute to the specification and explanation of the socially complex notion of policy consultants (McCann 2011b).

Summarizing, chapters four and five provide orientation for in-depth research into knowledge in policy mobilities. Accordingly, new insights into the creation and development of (sustainable) policies were generated through the integration of the two approaches.

SQ 3

How does the orientation of organizations towards sustainable policies lead to gradual institutional changes on the micro-level and the macro-level?

The results related to questions one and two showed how knowledge has an influence on the processes of Policy Mobilities. Knowledge is thereby understood as socially constructed and becomes tangible through practices of the actors involved (Strambach 2012). The third research question in this thesis takes a different perspective on these practices. It asks how practices of organizations change when they are aligned with specific policies. Through numerous

interactions with other actors, these intra-organizational changes also have an impact on the institutional environment (institutional system) they are embedded in (Strambach and Pflitsch 2020). Therefore, the orientation of organizations to sustainable policies can be a mechanism to shape Regional Transition Paths to Sustainability. The paper in chapter six contributes four key findings to this topic.

First, **the concept of the Economy for the Common Good (ECG, understood as a policy) provided impetus for changing the intra-organizational institutional system of the analyzed business development agency.** For example, it specified the organization's notion of sustainability as the ECG model emphasize aspects of social sustainability and participation that were previously largely neglected in everyday work. Based on this reconfigured understanding the actor's practices were as well actively reconsidered, adapted or amended. Ultimately, the orientation towards the content of the ECG was the decisive mechanism to initiate institutional changes and to trigger more sustainable practices on the micro-level.

Second, **sustainable policies such as the ECG do not only have an effect on the micro-level, i.e. within an organization, but also beyond that through interconnections to other actors.** Since the business development agency in the case study can be viewed as a typical mediator between politics, business and citizens, the practices affect different societal spheres. Through various interdependencies with other actors, the business development agency occupies a central position for developing and changing institutional systems at different scales. This means, business development agencies have the potential to function as important drivers of regional and trans-regional sustainable developments. Surely, this hypothesis needs further testing, but the case study has provided first evidence to support this argument.

Thirdly, the case study illustrates that **organizations can pursue organizational development by orienting themselves to policies and try to stabilize new or adapted institutions through specific practices** (Hodson et al. 2017; Ehnert et al., 2018b). The argument of simultaneous institutional dissolution and emergence – the duality of

institutionalization and de-institutionalization – was empirically supported by the case study (Strambach and Pflitsch 2020). However, it is important to note that there have not been any radical changes, but that the organization has already implemented own initiatives for sustainable action before the ECG was utilized for critical self-examination. Hence, by using the plasticity of the organizational and regionally specific institutional development path, iterative changes were implemented (Strambach 2010; Strambach and Halkier 2013). Additionally, this iterative approach supports the legitimization of new or amended practices in the regional context and thus shapes larger sustainability transitions over a longer period of time.

Fourth, **examining the interactions between an organization and a policy and its effects on institutional systems also contributes empirically to research on RTPS**. The case study has shown that shorter research periods and project-specific considerations can indeed reveal new insights into the mechanisms for short-term, gradual institutional changes. The results are also available for spatial or temporal comparative research on RTPS.

MQ

How can Policy Mobilities, Knowledge Dynamics and changes in regional institutional systems contribute to a better understanding of the Geography of Sustainability Transitions?

The Geography of Sustainability Transitions aims to explain transformative change by taking into account the effect of space. In contrast to early attempts of integrating space as a determining factor in Sustainability Transitions research, more differentiated spatial concepts were introduced through geographical approaches explaining sustainable innovations (e.g. multi-level perspectives, regional innovation systems, multi-local innovative milieus) (Markard et al. 2012). With the concept of assemblage, Policy Mobilities research favors a socio-constructivist spatial concept that focuses on practices and institutional dynamics in GeoST. This is in line with arguments by Strambach and Pflitsch (2020), who conceptualized and

utilized the neo-institutionalist evolutionary approach of transition topology to make the role of specific actors for the development of RTPS theoretically and empirically tangible. The Policy Mobilities approach has a quite similar effect for explaining the role of sustainable policies in RTPS. These policies are not only relevant at the political level but can also cause institutional changes at the organizational level via alternative economic models and organizational development tools, as the paper in chapter six has shown. Therefore, by analyzing sustainable policy mobilities, ‘deep leverage points for transformative change’ can be explored from a policy-centered perspective (Binz 2020).

To understand space in sustainable transitions, the assemblage approach used in PM is suitable as a spatial concept as it allows the openness to include certain elements in the analysis without ignoring others. This remarks a ‘truly multi-scalar approach’ for GeoST research, which is also suitable as a conceptual lens to explain spatially specific dynamics and therefore unequal regional developments (Binz 2020). Focusing on assembling elements from near and far, a relational aspect is also brought into the GeoST research. Assemblage thinking in connection with other PM processes has already proven itself in studies on policies that are not explicitly aimed at sustainable transition to generate insights into the interplay of global and local dynamics, the relationship between the global north and south in the policy area or comparative regional studies.

Furthermore, it has been shown that the integration of knowledge dynamics reveals insights into supporting and detaining factors for the development of sustainable policies. The case study in chapter six depicts that policies can lead to changed practices on an organizational level and affect their environment through interactions. Policy knowledge played a central role in this process, as it mobilized models and practical examples for sustainable thinking and action to the actors involved. In this sense, knowledge dynamics not only influence technological innovations, but the emergence of social innovations leading to institutional change on different scales. Therefore, by including regional institutional contexts, both PM and KD enable

examinations ‘beyond simple niche-regime dichotomies toward competing socio-technical configurations and field logics in transforming sectors’ or ‘monolithic, uniform sociotechnical regimes’ (Murphy 2020). The integration of knowledge dynamics thus considers the knowledge-intensive character of sustainable policies and the embeddedness of actors and practices, providing a sound concept for its empirical investigation.

Conceptually, integrating KD and PM provide coherent theoretical frames and empirically useful approaches to gain insights on transfers of sustainable policies. Chapters four and five additionally detailed to what extent policy consultants can be understood as drivers of regional sustainable development strategies. The core results underline that the institutional embedding of the actors and the socio-spatial contexts in the development of RTPS must be the focus of research. In this regard, it was shown that sustainability policies provide impetus for gradual short-term institutional changes at the micro level and long-term for larger changes at the macro level. The interplay of organizations and PM explains one mechanism of how institutional systems gradually change through altered practices. Hence, the PM approach and its focus on practices, processes, actors, and knowledge contributes to explaining the policy sphere of RTPS. By offering a spatial approach to analyze the mobilities of sustainable practices, PM therefore bears great potentials to research and understand regionally uneven developments in GeoST.

Figure 7.1 summarizes the contributions of the three approaches described above. These are by no means to be understood as conclusive and all-embracing. It rather shows possibilities and ideas from a theoretical and empirical point of view on how cross-sectoral analyses of policy mobilities, knowledge dynamics and changes in regional institutional systems shaping RTPS can contribute to a better understanding of the Geography of Sustainability Transitions.

Contributions to understanding Geographies of Sustainability Transitions	
Policy Mobilities <i>Assemblage</i> <i>Mobilities</i> <i>Mutations</i>	<ul style="list-style-type: none"> • Provides a spatial approach to understand dynamics inside and between regions and different scales (explains innovation, transfer, mobilization and localizations processes of sustainable policies) • Specifies the role of policy consultants as drivers of regional sustainable development strategies (contributes to explaining the political dimension of regional transition paths to sustainability) • Provides a coherent theoretical frame and empirically useful approaches to gain insights on successful transfers of sustainable policies
Knowledge Dynamics <i>Knowledge Bases</i> <i>Combindatorial KD</i> <i>KIBS</i>	<ul style="list-style-type: none"> • Takes adequately account of the knowledge -intensive character of sustainable policies and provides useful approaches for empiricism • Complements policy assemblage research by defining policy knowledge and integrating micro -level policy knowledge dynamics • Provides an explanatory approach for inherently knowledge -driven PM processes and the assembling practices of the actors involved • Contributes to and details debates about the notions of policy failure and success as well as mobilities and immobilities
Regional Transition Paths to Sustainability <i>Institutional change</i> <i>Operational change</i> <i>Organizations</i>	<ul style="list-style-type: none"> • Sustainability policies can provide impetus for gradual short -term institutional changes at the micro level and long -term for larger changes at the macro level • Interplay of organizations and PM explains a mechanism of gradual institutional system changes caused by altered practices • PM contributes to explaining the policy sphere of RTPS by offering a spatial approach to analyze the mobilities of sustainable practices and regionally uneven developments (enables comparative regional studies)

Figure 7.1: Key contributions of PM, KD and RTPS to understanding the GeoST

7.2 Limitations of this Thesis

There are some limitations in this thesis. First, the results of the case studies in chapter five are not generalizable. However, this was not the goal either. Rather, it was about testing the synergies of KD and PM leading to new and context-specific insights. The same applies to the case study in chapter six. However, since this case study comprises a worldwide pilot project, generalizable results can only be derived in the next few years. Nevertheless, the paper

contributes to future temporal and spatial comparative studies on the impact of sustainable policies to derive generalizable results.

Second, and consequently, the question arises of how representative the results of the case studies are. In fact, further examples and, if possible, comparative studies are required to enable profound theory building. Nevertheless, the applied qualitative methodology, which facilitated a multi-perspective analysis through the triangulation of several data sources, has led to deep insights and was accordingly appropriate.

Thirdly, precise definitions of several terms used remain open. This concerns for example the understanding of sustainability, development, economy, or economic promotion. However, a concise understanding of these terms was not the aim of analysis. Rather the case studies focused more on the institutional dynamics and practices that led to innovations in specific projects or, as shown in chapter five, positively or negatively influence innovation processes. In chapter six it was therefore important to emphasize that policies do change the practices of organizations and not to assess whether these are more sustainable than before based on specific definitions.

Fourth, the selection of cases was limited to the author's immediate work environment. The requirement to accompany processes within a consultancy over a longer period of time makes research difficult, since outside of these organizations it is not transparent whether a new project and policy ideas are aimed to be developed. Nevertheless, the Action Research approach proved to be useful, as it ensured the necessary knowledge about the project contexts, everyday work, and the institutional and business environment conditions of the consultancy the author of this thesis was engaged in.

Fifth, the macro-contexts of the case studies were only marginally included in the analysis. Instead, the focus was on deep investigations into the dynamics and practices at the micro-level and gave several indications regarding the mutual spatial shaping of local practices and (trans)regional institutional systems. Against the background of assemblage thinking, a

structured analytical inclusion of the macro-level would be desirable to gain further insights about the spatial shaping of RTPS.

7.3 Generalization of the Results

As described before, the case-specific analyzes in the papers lead to some limitations. Nevertheless, some generalizable results can be formulated related to the theories presented at the beginning.

The thesis has illustrated the importance of combinatorial knowledge dynamics in the development of sustainability policies, particularly in inventing new policy products inside consultancies. The specific actor constellations within these processes are crucial as they determine the necessary proximities among the actors to effectively assemble a new policy product.

Furthermore, the integration of knowledge dynamics corresponds to the inherently knowledge-driven processes of Policy Mobilities. Applying the theoretical and empirical approaches from KD research, useful insights into policy mobilization, localization and transfer processes can be obtained. It was shown that overcoming cognitive distances is a central challenge for collaborating actors seeking to invent and presumably also to transfer or implement sustainable policies.

The thesis also revealed that orienting towards specific policies is a mechanism for organizations to change their values and practices. This is necessary to trigger gradual institutional changes and to enable long-term regional transitions to sustainability. It also emphasizes that sustainable practices arising at the micro-level, must be legitimized and stabilized in the macro-context (Strambach and Pflitsch 2020).

In addition, the thesis has shown that consultancies can act as mediators and initiators for sustainable policies on an organizational and systemic level. By mobilizing good practice and experience from other regions, they are facilitators of relational proximities of regions in the

sense of the Policy Mobilities approach. Therefore, they may also contribute to a ‘strangely familiar’ shaping of different places regarding sustainable projects or practices (Temenos and McCann 2013: 344). Furthermore, policy consultants influence through co-productive project both other private companies as well as the public sector.

Finally, the thesis confirms that the use of existing concepts and multi-disciplinary approaches can enrich research on GeoST. This is true from both a conceptual and an empirical point of view. Of course, this thesis can only make a small contribution in this context. However, future studies on GeoST should bring together different geographical disciplines in a targeted manner to shed light on the diverse socio-spatial dynamics shaping sustainable transitions.

7.4 Implications for Policy and Practitioners

‘What does GeoST bring to the policy table?’ (Frenken 2020). This thesis cannot answer this question in general. Yet, some policy recommendations can be derived from the results.

The results of the case studies have shown that sustainable policies require regional contextualization. This means that a combination of global knowledge flows and local circumstances is required in order to implement tailor-made and effective strategies. Since this combination requires the cooperation of a wide variety of actors, promoting sustainability also becomes a multi-actor process. The task of supporting sustainable processes and practices therefore includes the creation of spaces in which actors from different scales and socio-spatial contexts can come together and exchange ideas. Sustainable policies and good practices for the private and public sectors can be mobilized within these interactive spaces. In particular, actors who stand at the interface between private business and the public sector can act as mediators and facilitators of sustainable policies, for example policy consultants or business development organizations. For this it is not necessary to create new conference formats, but rather use existing events and (trans-regional) meetings to integrate actors of different scales (from local

experts to international actors, e.g. of the ECG movement) and to share their knowledge about sustainable practices.

Furthermore, policy consultants should seek to overcome cognitive distances at an early stage of collaboration processes. This mainly applies to basic terms that are known individually but are oftentimes understood differently (e.g. ‘sustainability’ or ‘economy’). To invest more resources in overcoming cognitive distances is a central factor for promote a project as shown in chapter five.

Moreover, to support the development, testing and implementation of sustainable policies, it is particularly advisable to question current performance assessments in the public sector. For example, the thesis has shown that the practice of making ‘success’ the condition for public funding of specific projects (evidence-based administration and policy) is not expedient, especially when it comes to sustainability (Prince 2012a; Turnheim et al. 2015). Rather, even a partial adoption or dissemination of sustainable practices should be considered as an achievement. The argument is also in line with the debate about policy failure and success. In this way, supposedly failed projects are important to serve as a source of knowledge about sustainable practices. Chapter five illustrates this showing that all actors involved perceived the process as positive, although the creation of a marketable policy was not achieved. Instead, transparency was created about the state of knowledge and current projects between the actors, which can be useful for future (collaborative) assignments. It underlines that even small changes and gains in knowledge are perceived as success by the actors involved, without having a final claim to act completely sustainable. This way of thinking corresponds with the notion of sustainability as a normative and context-specific concept. Moreover, the results indicate that sustainability is difficult to manage. However, it can be initiated using different mechanisms. This, however, requires process sensitivity to make the best possible use of the potential of individual projects for more sustainability.

In summary, sustainability and sustainable policies require specific governance models to deal with these new challenges. In October 2021, this topic will also be subject to the International Sustainability Transition Conference aiming to transfer insights on ST ‘from research to impact’. It will be crucial to define how the impact of sustainable policies can be made tangible. Besides the question of a suitable set of indicators, the dynamic notion of sustainability must be considered. Since the perception of sustainability varies in space and time, an adaptable, flexible indicator system is required. Recapitalizing the debate on success and failure of sustainable policies and transitions, appropriate governance models must also fundamentally define what ‘impact’ exactly means. Here, for example, evaluations of projects, learning effects or monitoring could be focused on. However, the thesis has shown that in any case it will be important to create a processual methodology of impact assessment to capture gradual and long-term changes on the one hand and to consider time-delayed effects of sustainability policies on the other hand. Furthermore, sustainability-focused governance models need to appreciate the global unevenness of transition processes (cultural differences, political differences, relations between global north and south etc.). This argument also supports the ideas of the growing role of experimentation to adequately consider the socio-spatial circumstances (Bulkeley et al. 2016; Sengers et al. 2019) and digital networks enabling multi-actor and multi-scalar knowledge exchanges. The integration of socio-spatial aspects in governance structures beyond a technocratic focus will, however, also lead to struggles that will shape regional development paths. Yet, these struggles are reasonable if they initiate changes to improve well-being of lives inside societies, or in other words: as long as they contribute to the needed sustainable transitions.

7.5 Avenues for Further Research

The results of the thesis suggest some avenues for further research that relate to research on the role of sustainable policies as well as to the general understanding of GeoST. First, comparative

research on urban sustainable policy mobilities should be continued and expanded. Studies in the global south should be focused to further differentiate the picture of the geography of sustainable policy mobilities (Adscheit and Schmitt 2018; Shawe et al. 2019). In addition, by integrating time comparisons, generalizable insights beyond the specificities of RTPS and the role of policies could be gained.

Second, these analyzes should not only focus on ‘successful’ cases. Rather, research must be done beyond positive bias. This means that case studies from peripheral areas or reputedly failed sustainable (policy) projects also give new insights into supporting and impeding factors in RTPS. Both the debate in the PM literature on policy success and failure and chapter five of this thesis support this approach.

Third, quantitative methods should be applied to interlink the numerous individual examples and case studies. A combination of quantitative and qualitative methods (e.g. also grounded research) can be implemented to derive generalizable statements about certain aspects of the GeoST. However, the question arises, which measurable factors and which content-related focal points are necessary for such a quantitative survey. Yet, in the field of innovation research, the EURODITE project has already provided a fundamental and valuable database for many studies on spatiality in innovation processes. Analogously, due to the presumably high cost of data collection for detailing GeoST, a project like EURODITE should be designed and carried out jointly by numerous actors focusing sustainable innovations.

Fourth, the thesis has shown that the use of existing theories and concepts can generate new insights into individual aspects (e.g. the effect of policies) in GeoST. In this way, regionally specific dynamics were researched in multi-actor and multi-scalar projects. A similar approach could be used for other areas of GeoST to reveal explanations for uneven regional developments. One approach could be, for example, to connect aspects of GeoST with the ideas regarding the varieties of capitalism approach (Hall and Soskice 2001).

Fifth, conceptual papers are needed to specify key research gaps, questions, and perspectives in GeoST. On the one hand, the lack of clarity about these aspects allows experimental research approaches. On the other hand, it partially prevents application of interdisciplinary knowledge combination and knowledge creation due to the lack of boundary objects. Creating a shared understanding of central terminology could also help to examine how sustainable transitions shape social contexts to more well-being beyond single social or economic sectors (Truffer 2012).

Finally, until these common understandings have been established, research should still use interdisciplinary approaches to gain deeper insights in specific aspects and domains such as policies, social movements, economy, education etc. in the context of GeoST. Even if the results arise from relatively isolated research areas, they potentially contribute to valuable overarching theory building and empirical comparative studies of RTPS in GeoST.

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